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The Characteristics of Business Owners Database, 1992

By

Brian Headd

Office of Advocacy, U.S. Small Business Administration

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Abstract

This report describes the Characteristics of Business Owners (CBO), 1992 microdata available to researchers at the Center for Economic Studies and the CBO survey. The Bureau of the Census has conducted the 1982, 1987, and 1992 CBOs for the U.S. Small Business Administration, the Minority Business Development Agency, and the general public. For the 1992 CBO, there were three surveys, a sole proprietor survey, an owner survey for each owner in partnerships and S corporations, and a firm survey for each partnership and S corporation. For database purposes, the owner questions on the sole proprietors survey and owner survey were merged, and the firm questions on the sole proprietors survey and firm survey were merged. The owner database has 116,589 records, and the firm survey has 78,147 records. The CBO reports on owners about their background such as owner type (race, and ethnicity), age, education, work experience, veteran status, etc. The CBO reports on firms (with and without employees) about their economic details such as industry, financing, home-based, exporting, franchising, profits, etc. In addition, the CBO was conducted in 1996 on firms in existence in 1992 allowing for some survivability analysis. The CBO over samples women and minority owners to allow researchers to more reliably study these owners. This survey is an extension of the Survey of Minority-Owned Business Enterprises (SMOBE) and Survey of Women-Owned Businesses (WOB) within the economic census. The CBO is available as a report, special tabulations, or microdata for approved researchers.

Keywords: CES paper, characteristics of business owners, microdata, demographics of business owners, small business, small business owners, self-employment, women-owned businesses, minority-owned businesses, financing, capital, profits, home-based, exporting, franchises, business survival, firm size data, Bureau of the Census data

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Overview

The Bureau of the Census completed its third Characteristics of Business Owners (CBO) and has made it available for analysis. The CBO is of significant importance because it is one of the few data sources for demographic information about owners and their businesses.¹ This report supplements previous CES papers documenting the CBO (Nucci, 1992 and Nucci, 1989). The contents of this report include CBO processing, summary content, changes over the years, access to the data, and appendices with information needed to evaluate the microdata including the surveys.

The CBO has been produced for 1982, 1987, and now 1992. The CBO survey is conducted along with the economic census and is a supplement to the Survey of Minority-Owned Business Enterprises (SMOBE), and Survey of Women-Owned Businesses (WOB). The CBO has owner questions, and economic characteristics of the firm questions. Owner questions include gender, age, born in the U.S., veteran status, education, business experience, financing, time worked and more. Firm questions include business status (still in existence or not), year established, financing, sales, profits, business annoyances (impact of profitability from various issues), benefits, exporting, and more.

With the CBO, researchers can and have contributed to the growing literature of studies on business owners. While previous studies of owners and businesses have used self-employment data from the Bureau of Labor Statistics (see Bregger, 1996; and Devine, 1994b), and business data from Dun and Bradstreet (see Phillips and Kirchhoff, 1989), the CBO allows a more in-depth look at the owners and their businesses (see Aronson, 1991; Åstebro and Bernhardt. 1999a and b; Ando, 1988a; Ando, 1988b; Bates, various years; Carrington and Troske; Holmes and Schmitz, 1996b; and McGuckin, and Nucci, 1991).² Unfortunately, the CBO being a relatively new data source, conducted on an infrequent basis, and being difficult for researchers to use has given the CBO a low profile compared to other sources. This is indicated from John Bregger's quote (Bregger, 1996) which some would not necessarily agree with, "About 1 of 11 workers in the United States was self-employed in 1994; the Current Population Survey has been the lone source of data on self-employment over the past 55 years."

¹ Some demographic information on self-employment (but not their businesses) can be found in the Current Population Survey, a joint project between the Bureau of Labor Statistics and the Bureau of the Census (<http://www.bls.census.gov/cps/cpsmain.htm>).

² Boden and Nucci (1997) compared the Bureau of Labor Statistics self-employment data (from the Current Population Survey) and the Characteristics of Business Owners.

The CBO is available in three ways. The 1992 CBO tabulations are available in report form (<http://www.census.gov/prod/www/titles.html#ent>). Special tabulations (or cross-tabulations) can also be obtained from the Bureau of the Census (available at cost from the Chief, Economic Statistics Branch, Company Statistics Division, Bureau of the Census, Washington, DC 20233-6400). Lastly, researchers can obtain access to the microdata at the Bureau of the Census' Center for Economic Studies if approved. For more information, see below in the Access to the CBO Microdata section. The microdata variables and values are presented in Appendix A.

Characteristics of Business Owners Processing

The 1992 CBO was a survey of firms in 1992 conducted in 1996.³ The CBO mail survey universe was “any business which file an IRS form 1040, Schedule C (individual proprietors or self-employed persons); form 1065 (partnership); or form 1120S (subchapter S corporation) in 1992.” (U.S. Bureau of the Census, 1997). In addition, only tax returns with \$500 or more in sales in 1992 were included.⁴ C Corporations were not surveyed, as they generally have many investors in which owner questions would often be inappropriate.⁵ Unfortunately, excluding C corporations excludes most large firms, making small and large firm comparisons very difficult. The number of firms selected for the 1992 CBO survey were roughly equal in the following categories; Hispanic, black, other minority (Asian, Pacific Islander, American Indian, and Alaska Native), women and non-minority male. For the microdata, weights were added to the owner and firm records to reflect the sampling rates for each owner and firm, respectively.⁶

Three different questionnaires were sent out, a sole proprietors survey, a business characteristics survey (for each partnership and S corporation), and an owner characteristics survey (for each owner in partnerships and S corporations). The sole proprietors survey contained questions on business

³ This delay could lead respondents to report inaccurate responses such as responses for the year the survey was mailed.

⁴ If a multiple filer filed more than one tax return in the same industry then they were joined to create a firm, else each tax return was treated as a firm.

⁵ Note that C corporation as a tax filing status is becoming less popular and S corporation tax filing status is becoming more popular due to tax law changes. This shift is causing large firms to have changed from outside the scope of the CBO to inside the scope of the CBO and needs to be addressed when making comparisons of the 1982, 1987 and 1992 CBO information.

⁶ It is worried that the minority groups of Hispanic, and Asian were undercovered (see U.S. Bureau of the Census (1996e) summary V and VI for an explanation).

characteristics and owner characteristics. For the Center of Economic Studies, a database was created for owners and a database was created for firms.⁷

The CBO piggybacks off of the SMOBE/WOB, which use the same universe criteria. For sole proprietors, SMOBE and WOB sent the social security numbers on the tax forms to the Social Security Administration to determine the sex of the owners. The CBO records were matched to data compiled for SMOBE and WOB.⁸ Some of the SMOBE/WOB information is from tax forms from the Internal Revenue Service.⁹

About 62 percent of the 78,147 firm surveys (67 percent of the 39,705 employer firm surveys), and 59 percent of the 116,589 owner surveys were returned.¹⁰ In addition, not all forms were completely filled out. Note that no imputations took place for the CBO but did take place for the SMOBE and WOB.¹¹ Returned surveys were reweighted to account for unreturned surveys. Therefore, owner and firm weights in the owner and firm databases are zero for unreturned surveys. To create universe estimates for the owner and firm databases, add the owner and firm weights of selected records (note that blank fields, or non-response discussed below needs to be considered when selecting records).

In addition for returned surveys some fields were left blank. For example the first question, still in business (I1A), in the owner database had 40.6 percent of the surveys unreturned, 4.3 percent left blank, and 55.1 percent answered. Also in the owner database, the gender question (I3) had 4.5 percent left blank, and the personal income question (I11_1) had 5.6 percent left blank. In the firm database, the when established question (I12) had 3.2 percent left blank, and the capital needed to start question (I14A) had 3.4 percent left blank. The percentage of questions left blank generally increased as the survey went on. However, non-response to the last questions in the sole proprietor and firm survey, status for the Family and Medical Leave Act (I25 through I31), seem very large as the

⁷ About 50 records with corrections for a few fields which were not used for the CBO report were sent to CES but were not yet changed in the CES databases.

⁸ The CBO used the SMOBE and WOB to obtain for each firm, the Standard Industrial Classification Code (SIC), geographic code, legal form of organization, number of employees, annual payroll (for firms with employees), receipts (for firms with employees), number of business owners, partners or shareholders, race of the majority owner, ethnicity of the majority owner and gender of the majority owner.

⁹ This included the name and address of the firm, employer identification number or social security number of the owner, principal industrial activity code, receipts, and legal form of organization.

¹⁰ Note that the publication for the CBO (U.S. Bureau of the Census. 1997) lists 78,134 firm surveys and 116,557 owner surveys and an explanation for this small discrepancy was not available.

instructions stated to skip this section if you did not have employees. Therefore, much of the left blank statuses for these questions are really skip pattern questions.

Non-respondent bias should be a concern when working with the CBO because it is a survey sent out about 3 to 4 years after the fact. Firms that went out of business during the lag period are less likely to be found and respond to the survey.

Characteristics of Business Owners Contents

The CBO for 1992 captured more information than previous surveys. New questions included:

- Some questions for both 1992 and 1994 to attempt to capture growth or changes (1992 and 1994 questions were asked on health insurance of the owner, personal income, hours and weeks working in the business, sales, customer types, locations of sales, percent minority customers, net profit or loss, personal income from the business, issues affecting profitability, employment, benefit offering, franchising, home-based, exports, Family and Medical Leave Act, and relative ownership).
- If the business was discontinued, a question was asked on the year this occurred and a question was asked whether the business was considered successful at closure and reasons for not being successful.
- Health insurance status of the owner
- More work experience questions such as years as an owner of another business
- Personal income (instead of household income)
- Reasons for becoming an owner in a business
- Profitability impact from various issues
- Employee benefits
- Specific home-based questions
- Specific exporting questions
- Family and medical leave questions
- Owner's language questions

To summarize CBO results (weighted for non-response), most of the firms in the CBO for 1992 did not have employees (80.8 percent of owners owned firms without employees). In addition, most of the

¹¹ A procedure was used to impute data for unreturned questionnaires (see U.S. Bureau of the

firms without employees had only one owner (averaging 1.1 owners per firm while firms with 100 or more employees averaged 2.8 owners per firm) (see U.S. Small Business Administration, 1998).¹²

Variables by owner type indicated the differences between the different categories. Women, Asian, Pacific Islanders, American Indian, Aleut Eskimo, black, and Hispanic owners often had lower percentages of owners in the larger firm employment size classes. Women owned 35 percent of all firms without employees, but only 16.5 percent of firms with 100 or more employees. The category of Asian or Pacific Islanders / American Indian or Aleut Eskimo constituted 3.4 percent of all non-employer firms, but just 1.7 percent of firms with 100 or more employees. Black-owned firms were 3.7 percent of all non-employer firms, but only 0.8 percent of firms with 100 or more employees. Hispanic-owned firms were 4.4 percent of all non-employer firms, but just 1.4 percent of firms with 100 or more employees. Women-owned firms had a reasonable share of retail trade (44.1 percent) and service industries (40.6 percent), but had a low share of the construction industry (10.0 percent). The category of Asian, Pacific Islanders, American Indian, and Aleut Eskimo had a high share in retail trade; black and Hispanic-owned firms had high shares in the combined industry of transportation, communication, and utilities, and white-owned firms had a high share in the combined industry of finance, insurance, and real estate.

The age distribution of owners showed that only 2.4 percent of owners were under age 25, and 11.0 percent of owners were age 65 or older. The age category of 35-44 had the largest percentage with 28.7 percent of the owners in this category.¹³ The CBO also indicates that in 1992, 90.6 percent of business owners were born in the United States (9.4 percent were foreign born). The native born percentage was higher for the larger firms, 94.5 percent of the owners of firms with 100 or more employees were born in the United States.

Firm highlights for 1992 include:

- 73.0 percent of the owners were original founders; 11.1 percent received the firm as a transfer (gift); 10.7 percent purchased the firm; 2.9 percent inherited the firm; and the remaining 2.3 percent acquired the firm in other ways.

Census, 1996e).

¹² The results listed here differ from the CBO publication because of the factoring out “not reported” and “not applicable” responses.

¹³ Note that Boden and Nucci (1997) found differences with the age distributions from the CBO and Current Population Survey for self-employment.

- 23.3 percent of the firms were started within the previous two years, and 22.4 percent were started more than 12 years earlier. By major industry, the group of transportation, communication, and utilities is the major industry group most represented by younger firms, while the group of finance, insurance and real estate is the industry most represented by older firms.
- 75.5 percent, of firms existing in 1992 survived four or more years (until at least 1996). Survival rates varied for firms with employees and firms without employees. Of firms without employees, 72.4 percent remained in business until at least 1996; the figure was 89.6 percent for firms with 1 to 4 employees. By major industry, the finance, insurance and real estate group had the highest survival rate (82.6 percent) and the transportation, communication, and utilities group had the lowest survival rate (70.9 percent).
- Home-based businesses were 53.4 percent of all businesses, with only a small percent of home-based businesses moving out of the house (figures for home-based when first established and currently home-based did not differ by much). Construction firms were the most likely to be home-based (81.9 percent), and finance, insurance and real estate firms were the least often home-based (36.0 percent).
- Franchised businesses were 3.1 percent of all businesses. This percentage increases sharply as firm employment size increases. Retail trade firms, at 8.0 percent, were most often franchised.
- Exporting businesses represented 1.7 percent of all businesses. As the firm employment size increases, the percent of businesses that export increases. Of the businesses that export, most have less than 10 percent of their sales as exports. Manufacturing firms were most often exporters (9.3 percent).

Changes in the Survey Over the Years

The CBO is an extension of the SMOBE which was first introduced in 1969 (see U.S. Bureau of the Census, 1971). The first CBO was conducted for 1982. The second CBO, 1987 excluded tax returns with less than \$500 in sales, thus avoiding tax returns that may not have been “viable” businesses. The third CBO, 1992 expanded the survey questions, and produced an “All Business” tabulation in its report for comparison.

Note that creating a longitudinal database using the 1982, 1987, and 1992 data would be limited by the few respondents surveyed in all three CBOs as a small percentage of the business population is surveyed in each CBO. However, survival information, and potentially data on employment and

receipts could be obtained by matching CBO records to the SMOBE/WOB firm population universe for nonmatching years (the CBO records already contain matching year information from the SMOBE/WOB). Also, for employer firms the possibility exists to link the CBO with the Longitudinal Establishment and Enterprise Microdata (LEEM) also at CES (Robb, 1999).¹⁴

Sample, response rates and universe estimates for the different owner cells are listed in Appendix B.

Specific differences between the surveys are taken from the CBO reports and listed in Appendix B, and are summarized below.

The 1992 CBO differs from the 1987 CBO in that:

- The 1992 survey had more questions (see the Characteristics of Business Owners Contents section for specifics).
- The cutoff for business tax returns at \$500 is in current dollars, making 1992's cutoff lower than 1987's cutoff.
- The 1992 survey industry classifications were from the Standard Industrial Classifications (SIC), 1987; and the 1987 survey used the SIC, 1972.
- In 1987, data were available from the IRS and SSA to identify the owners of partnerships and subchapter S corporations, their gender, and sometimes their race/ethnicity. For 1992, all information on these owners came from responses to the 1992 SMOBE, WOB, and CBO. No change occurred for sole proprietors.
- 1987 had a processing error potentially overstating employer firms due to attempting to match Census data with IRS data.

The 1987 CBO differs from the 1982 CBO in that:

- 1987 included non-C corporation business tax returns with \$500 or more in sales during the year, while 1982 included all non-C corporation business tax returns.
- Industry classifications improved for 1987.
- 1987 included tax returns where the firm had more than 10 owners, while 1982 excluded this group.

¹⁴ The LEEM is currently available for 1989 to 1996 and includes the following fields by establishment for each firm: the establishments' location (state, county, place code and if applicable the MSA), employment by year, annual payroll by year, original or secondary establishment status, industry, start year, and the firms' employment (see Robb, 1999).

- 1987 altered the classification of firms in the sampling frames (Hispanic, Black, other minorities, women, and non-minority male) and how data was tabulated from these frames for publication.
- 1987 had changes in sampling.
- 1987 had a processing error overstating employer firms.

Access to the CBO Microdata

The CBO is available in report form, as special tabulations by the Bureau of the Census, and as microdata available to approved researchers at Census Bureau Research Data Centers (RDCs).

The CBO report (<http://www.census.gov/prod/www/titles.html#ent>) contains information about the program, 129 tables, and the surveys. The 129 tables are a summary table, and 31 cross tabulations of owner type by industry division, receipt size of firm, employment size of firm, and legal form of organization of firm. Users can request additional tables from the Bureau of the Census as special tabulations at cost from Chief, Economic Statistics Branch, Company Statistics Division, Bureau of the Census, Washington, DC 20233-6400.

The Bureau of the Census under Title 13, United States Code, collects CBO data. Access to the microdata for the CBO is restricted to protect the confidentiality of survey respondents. CES has the 1982, 1987, and now 1992 CBO databases (excluding specific names and addresses) available for approved researchers at CES. To facilitate use of the microdata, variable descriptions are included in Appendix A. To view the survey forms, Appendix C of the Characteristics of Business Owners, 1992 report (<http://www.census.gov/prod/www/titles.html#ent>) was attached at the end of this report for convenience.

Files containing CBO microdata are available at the Census Bureau's Research Data Centers (RDCs). Interested researchers must submit a detailed research proposal (note that proposals should emphasize models not tables) and obtain CES approval. If you are interested in obtaining access to the microdata and would like to submit a research proposal, or would like more details on the RDC program, see the Center for Economic Studies web site at <http://www.census.gov/cecon/www/ces.html> or contact Dr. Mary Streitwieser at proposals@ces.census.gov.

References

- Aronson, R., 1991. "Self-Employment, A Labor Market Perspective, Ithaca, New York: IRS Press.
- Ando, F. 1988a. "Capital Issues and the Minority-Owned Business." Review of Black Political Economy 16:77-109.
- Ando, F. 1988b. Minorities, Women, Veterans and the 1982 Characteristics of Business Owners: A Preliminary Analysis of Sole Proprietorships. Report prepared for the Office of Advocacy, U.S. Small Business Administration. Washington, D.C: National Technical Information Service (PB89-115091).
- Åstebro, T., and I. Bernhardt. 1999a. "Bank Loans as Predictors of Small Start-up Business Survival," Department of Management Sciences, University of Waterloo.
- Åstebro, T., and I. Bernhardt. 1999b. "The Winner's Curse of Human Capital," Department of Management Sciences, University of Waterloo.
- Bates, T. 1986. "Characteristics of Minorities Who Are Entering Self-Employment." Review of Black Political Economy 15n2: 31-49.
- Bates, T. 1989a. Entrepreneur Factor Inputs and Small Business Longevity. Discussion Paper, CES 89-4. Washington, D.C.: Bureau of the Census, Center for Economic Studies.
- Bates, T. 1989b. Financial Capital and Small Business Startups. Report prepared for the Office of Advocacy, U.S. Small Business Administration. Washington, D.C: National Technical Information Service (PB90-107517).
- Bates, T. 1989c. "Small Business Viability in the Urban Ghetto Milieu." Journal of Regional Science 29n4:625-643.
- Bates, T. 1990a. Self-Employment Trends among Mexican Americans, Discussion Paper, CES 90-9. Washington, D.C.: Bureau of the Census, Center for Economic Studies.
- Bates, T. 1990b. "New Data Bases in Human Resources: The Characteristics of Business Owners Data base." Journal of Human Resources 25n4:752-756.
- Bates, T. 1990c. "Entrepreneur Human Capital Inputs and Small Business Longevity." Review of Economics and Statistics 72(4):551-559.
- Bates, T. 1993. Determinants of Survival and Profitability Among Asian Immigrant-Owned Small Businesses, Discussion Paper, CES 93-11. Washington, D.C.: Bureau of the Census, Center for Economic Studies.
- Bates, T. 1995a. Small Businesses Do Appear to Benefit From State/Local Government Economic Development Assistance, Discussion Paper, CES 95-02. Washington, D.C.: Bureau of the Census, Center for Economic Studies.
- Bates, T. 1995b. "A Comparison of Franchise and Independent Small Business Survival Rates." Small Business Economics 7n5:377-88.

- Bates, T. 1997. Race, self-employment, and upward mobility: An illusive American Dream, Washington, D.C.: The Woodrow Wilson Center Press; Baltimore and London: The Johns Hopkins University Press.
- Bates, T. and A. Nucci. 1989. "An Analysis of Small Business Size and Rate of Discontinuance." Journal of Small Business Management 27:1-8.
- Bates, T. and C. Grown, 1992. "Commercial Bank Lending Practices and the Development of Black Owned Construction Companies." Journal of Urban Affairs 14 (1):25-41.
- Boden, R. 1996. "Gender and Self-Employment Selection: An Empirical Assessment." Journal of Socio-Economics 25n6:671-82.
- Boden, R. and A. Nucci. 1997. "Counting the Self-Employed Using Household and Business Sample Data." Small Business Economics 9:427-36.
- Borjas, G.J. 1987. "The Self-Employed Experience of Immigrants." Journal of Human Resources 21:485-506.
- Bregger, J. 1996. "Measuring Self-Employment in the United States." Monthly Labor Review 119n1-2:3-9.
- Carrington, W. and Troske K. "Gender Segregation in Small Firms." Journal of Human Resources.
- Chell, E., J. Haworth and S. Brearley. 1991. The entrepreneurial personality: Concepts, cases and categories, London and New York: Routledge Small Business Series.
- Devine, T. 1994a. "Changes in Wage-and-Salary Returns to Skill and the Recent Rise in Female Self-Employment." American Economic Review 84n2:108-13.
- Devine, T. 1994b. "Characteristics of Self-Employed Women in the United States." Monthly Labor Review 117n3:20-34.
- Evans, D. and B. Jovanovic. 1989. "An Estimated Model of Entrepreneurial Choice Under Liquidity Constraints." Journal of Political Economy 97:808-827.
- Evans, D. S. and L.S. Leighton. 1989. "Some Empirical Aspects of Entrepreneurship." American Economic Review 89:519-535.
- Fairlie, R. 1996. Ethnic and racial entrepreneurship: A study of historical and contemporary differences. New York and London: Garland.
- Fairlie, R. and B. Meyer. 1996. "Ethnic and Racial Self-employment Differences and Possible Explanations." Journal of Human Resources 31n4:757-93.
- Fratoe, F. 1988. "Social Capital of Black Business Owners." Review of Black Political Economy 16n4:33-50.
- Fuchs, V. 1982. "Self-Employment and Labor Force Participation of Older Males." Journal of Human Resources 17:n3:339-57.
- Holmes, T. and J. A. Schmitz. 1990. "A Theory of Entrepreneurship and Its Application to the Study of Business Transfer." Journal of Political Economy 98:265-294.

- Holmes, T. and J. A. Schmitz. 1996a. "Nonresponse Bias and Business Turnover Rates: The Case of the Characteristics of Business Owners." Journal of Business and Economic Statistics 14n2:231-41.
- Holmes, T. and J. A. Schmitz. 1996b. "Managerial Tenure, Business Age, and Small Business Turnover." Journal of Labor Economics. 14:79-99.
- Khilstrom, R. E. and J. Laffont. 1979. "A General Equilibrium Entrepreneurial Theory of Firm Formation Based on Risk Aversion." Journal of Political Economy 87:719-748.
- Kijakazi, K. 1997. African-American economic development and small business ownership. New York and London: Garland.
- Light, I. and C. Rosenstein. 1995. Race, ethnicity, and entrepreneurship in urban America. New York: Aldine de Gruyter.
- McGuckin, R. H. and A. Nucci. 1991. "Survival Patterns for Small Businesses: Who Survives?" Closing the Tax Gap: Alternatives to Enforcement, Conference Report, 1991 Research Conference. Washington, D.C.: Department of the Treasury, Internal Revenue Service. (Document 7302)
- Maxim, P. 1992. "Immigrants, Visible Minorities, and Self-employment". Demography 29:181-197.
- Nucci, A. 1989. The Characteristics of Business Owners (CBO) Database. Discussion Paper, CES 89-9. Washington, D.C.: Bureau of the Census, Center for Economic Studies.
- Nucci, A. 1992. The Characteristics of Business Owners (CBO) Database. Discussion Paper, CES 92-7. Washington, D.C.: Bureau of the Census, Center for Economic Studies.
- Phillips, B. and B. A. Kirchoff. 1989. "Formation, Growth and Survival; Small Firm Dynamics in the U.S. Economy." Small Business Economics. Vol.1:65-74.
- Reynolds, P. and B. Miller. 1989. New Firm Survival: Analysis of a Panel's Fourth Year. University of Minnesota, The Strategic Management Research Center. (Discussion Paper #115)
- Reynolds, P. and S. B. White. 1997. The entrepreneurial process: Economic growth, men, women, and minorities, Westport, Conn. and London: Greenwood, Quorum Books.
- Robb, A. 1999. New Data for Dynamic Analysis: The Longitudinal Establishment and Enterprise Microdata (LEEM). Discussion Paper, Washington, D.C.: Bureau of the Census, Center for Economic Studies.
- Stevens, R. L. 1984. "Measuring Minority Business Formation and Failure." The Review of Black Political Economy. 12:71-84.
- Steinmetz, G. and E. O. Wright. 1989. "The Fall and Rise of the Petty Bourgeoisie: Changing Patterns of Self-Employment in the Postwar United States." American Journal of Sociology 94:973-1018.
- U.S. Bureau of the Census. 1971. Minority Owned Businesses: 1969. Washington, D.C.: Government Printing Office.
- U.S. Bureau of the Census. 1980. Selected Characteristics of Women-Owned Businesses 1977. Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census. 1985. 1982 Survey of Minority Owned Business Enterprises, Black. Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census. 1986a. 1982 Survey of Minority Owned Business Enterprises, Asian Americans, American Indians, and Other Minorities. Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census. 1986b. 1982 Survey of Minority Owned Business Enterprises, Hispanic. Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census. 1986c. 1982 Economic Censuses, Women-Owned Businesses. Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census. 1987. 1982 Characteristics of Business Owners. Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census. 1990a. 1987 Economic Censuses, Women-Owned Businesses. Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census. 1990b. 1987 Survey of Minority Owned Business Enterprises, Black. Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census. 1991a. 1987 Survey of Minority Owned Business Enterprises, Asian Americans, American Indians, and Other Minorities. Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census. 1991b. 1987 Survey of Minority Owned Business Enterprises, Hispanic. Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census. 1991c. 1987 Survey of Minority Owned Business Enterprises, Summary. Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census. 1992. 1987 Characteristics of Business Owners. Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census. 1993. 1992 Economic Census, Geographic Reference Manual. Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census. 1996a. 1992 Economic Census, Women-Owned Businesses. Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census. 1996b. 1992 Survey of Minority Owned Business Enterprises, Black. Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census. 1996c. 1992 Survey of Minority Owned Business Enterprises, Asian Americans, American Indians, and Other Minorities. Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census. 1996d. 1992 Survey of Minority Owned Business Enterprises, Hispanic. Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census. 1996e. 1992 Survey of Minority Owned Business Enterprises, Summary. Washington, D.C.: Government Printing Office.

U.S. Bureau of the Census. 1997. 1992 Characteristics of Business Owners. Washington, D.C.: Government Printing Office.

U.S. Small Business Administration. 1998. Characteristics of Small Business Owners and Employees, 1997. Washington, D.C: National Technical Information Service (PB98-127111).

Yuengert, A. 1989. Self-Employment and the Earnings of Male Immigrants in the U.S., Yale Economic Growth Center Discussion Paper: 581.

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Appendix A: The CBO, 1992 Variables

CBO Owner and Firm Files Available to Approved Researchers

Table A.1. Owner File Description

Data Set Name	HOME.CBO_OWN
Observations	116,589
Variables	301
Observation Length	719
Label	1992 CBO Owner file
File Size (bytes)	84,025,344

Number	Variable	Type	Length	Position	Label
13	ACAP92	Num	8	51	92 wages
50	ACEMP92	Num	8	198	92 employment
48	ACEMP94	Num	8	182	94 employment
12	ACEMP92A	Num	8	43	92 employment (a copy of ACEMP92)
49	ACSR192	Num	8	190	92 sales/receipts
47	ACSR194	Num	8	174	94 sales/receipts
14	ACSR192A	Num	8	59	92 sales/receipts (a copy of ACSR192)
34	APEMP	Num	8	112	93 employment (data the same as ACEMP94)
22	API	Char	2	82	FERS--Asian/Pacific Islander
35	APSR1	Num	8	120	prior yr receipts
19	BLACK	Char	1	78	FERS-Black
5	BUSNO	Char	1	22	business number for SSN numbers
3	CBOID	Char	10	3	CBO identification number
37	CBORECSZ	Char	2	130	unknown (data the same as RECSZ)
23	CBOSEX	Char	1	84	FERS sex
41	CBOWGT2	Num	8	151	original sampling weight
1	CBO_FRAM	Char	1	0	major ethnicity grouping sampling frame
43	CFN	Char	11	160	Census file number
11	CSA	Char	4	39	consolidated statistical area
8	CTYGEO	Char	3	28	county (fips)
4	EISSN	Char	9	13	EI # for SSN cases
17	EMPLYR	Char	1	69	employer(1)-nonemployer(2)
15	EMPSZ	Char	1	67	92 employment size class
46	FDUP	Char	1	173	unknown
45	FEDIT	Char	1	172	form-edit
24	FRECSZ	Char	1	85	unknown
38	FRMFIELD	Char	1	132	firm field
39	FRMTYPE	Char	10	133	92 cbo form type (1 2 3)
299	FRMWGT	Num	8	708	non-response adjusted firm weight
16	HASOURCE	Char	1	68	used for sampling, race/ethnicity SMOBE codes

Number	Variable	Type	Length	Position	Label
20	HISP	Char	1	79	FERS-Hispanic
62	I3	Char	2	228	reported sex
92	I12	Char	2	288	Year Business Established
270	I25	Char	2	644	Covered by FMLA
129	I161	Char	2	362	Startup Assistance: None
130	I162	Char	2	364	Startup Assistance: Fed
131	I163	Char	2	366	Startup Assistance: State/Local
132	I164	Char	2	368	Startup Assistance: College
133	I165	Char	2	370	Startup Assistance: Other Business
134	I166	Char	2	372	Startup Assistance: Other
204	I221	Char	2	512	Language Spoken: Arabic
205	I222	Char	2	514	Language Spoken: Chinese
206	I223	Char	2	516	Language Spoken: English
207	I224	Char	2	518	Language Spoken: French
208	I225	Char	2	520	Language Spoken: German
209	I226	Char	2	522	Language Spoken: Greek
210	I227	Char	2	524	Language Spoken: Hindu
211	I228	Char	2	526	Language Spoken: Italian
212	I229	Char	2	528	Language Spoken: Japanese
213	I2210	Char	2	530	Language Spoken: Korean
214	I2211	Char	2	532	Language Spoken: Polish
215	I2212	Char	2	534	Language Spoken: Portuguese
216	I2213	Char	2	536	Language Spoken: Russian
217	I2214	Char	2	538	Language Spoken: Spanish
218	I2215	Char	2	540	Language Spoken: Tagalog
219	I2216	Char	2	542	Language Spoken: Vietnamese
220	I2217	Char	2	544	Language Spoken: Other
86	I10A	Char	2	276	Years Work Experience
87	I10B	Char	2	278	Years Managerial Experience
88	I10C	Char	2	280	Owner Experience
89	I10D	Char	2	282	Worked in Similar Business
90	I11_1	Char	2	284	92 Total Personal Income
91	I11_2	Char	2	286	94 Total Personal Income
93	I13A	Char	2	290	Year Acquire Ownership
94	I13B	Char	2	292	How Acquire Ownership
95	I13B_S	Char	2	294	Write in-Acquire Ownership
96	I13C	Char	2	296	Reason for Starting Business
97	I13C_S	Char	2	298	Write in-Reason Start
98	I14A	Char	2	300	Capital at Startup
99	I14B	Char	2	302	% Capital Borrowed
100	I14C1	Char	2	304	Source Borrowed Capital: Bank
101	I14C2	Char	2	306	Source Borrowed Capital: Govt Bank
102	I14C3	Char	2	308	Source Borrowed Capital: Any Government
103	I14C4	Char	2	310	Source Borrowed Capital: Investment Co
104	I14C5	Char	2	312	Source Borrowed Capital: Previous Owner
105	I14C6	Char	2	314	Source Borrowed Capital: Supplier Credit
106	I14C7	Char	2	316	Source Borrowed Capital: oth. business
107	I14C8	Char	2	318	Source Borrowed Capital: home mortgage
108	I14C9	Char	2	320	Source Borrowed Capital: own credit card

Number	Variable	Type	Length	Position	Label
109	I14C10	Char	2	322	Source Borrowed Capital: spouse
110	I14C11	Char	2	324	Source Borrowed Capital: family
111	I14C12	Char	2	326	Source Borrowed Capital: other personal
112	I14D1	Char	2	328	Source NonBorrowed: None
113	I14D2	Char	2	330	Source NonBorrowed: personal/family
114	I14D3	Char	2	332	Source NonBorrowed: sale personal assets
115	I14D4	Char	2	334	Source NonBorrowed: personal/family savings
116	I14D5	Char	2	336	Source NonBorrowed: other
117	I14D_S	Char	2	338	Source NonBorrowed: write in
118	I14E1	Char	2	340	Low Cash Measures: no occurrence
119	I14E2	Char	2	342	Low Cash Measures: rely oth business
120	I14E3	Char	2	344	Low Cash Measures: Invest more capital
121	I14E4	Char	2	346	Low Cash Measures: delay supplier payment
122	I14E5	Char	2	348	Low Cash Measures: family help
123	I14E6	Char	2	350	Low Cash Measures: other
124	I14E_S	Char	2	352	Low Cash Measures: write in
125	I15A_1	Char	2	354	92 Weeks Managing/Working in Business
126	I15A_2	Char	2	356	94 Weeks Managing/Working in Business
127	I15B_1	Char	2	358	92 Ave. No. Hrs Managing/Working Business
128	I15B_2	Char	2	360	94 Ave. No. Hrs Managing/Working Business
135	I16_S	Char	2	374	Startup Assistance- write in
136	I17_A1	Char	2	376	92 Total Sales
137	I17_A2	Char	2	378	94 Total Sales
138	I17_B11	Char	2	380	92 Customer(10%):fed govt
139	I17_B12	Char	2	382	92 Customer(10%):state govt
140	I17_B13	Char	2	384	92 Customer(10%):local govt
141	I17_B14	Char	2	386	92 Customer(10%):business
142	I17_B15	Char	2	388	92 Customer(10%):individuals
143	I17_B16	Char	2	390	92 Customer(10%):other
144	I17_B21	Char	2	392	94 Customer(10%):fed govt
145	I17_B22	Char	2	394	94 Customer(10%):state govt
146	I17_B23	Char	2	396	94 Customer(10%):local govt
147	I17_B24	Char	2	398	94 Customer(10%):business
148	I17_B25	Char	2	400	94 Customer(10%):individuals
149	I17_B26	Char	2	402	94 Customer(10%):other
150	I17_C11	Char	2	404	92 Market Areas: Neighborhood
151	I17_C12	Char	2	406	92 Market Areas: city/county
152	I17_C13	Char	2	408	92 Market Areas: regional
153	I17_C14	Char	2	410	92 Market Areas: national
154	I17_C15	Char	2	412	92 Market Areas: international
155	I17_C21	Char	2	414	94 Market Areas: Neighborhood
156	I17_C22	Char	2	416	94 Market Areas: city/county
157	I17_C23	Char	2	418	94 Market Areas: regional
158	I17_C24	Char	2	420	94 Market Areas: national
159	I17_C25	Char	2	422	94 Market Areas: international
160	I17_D1	Char	2	424	92 %Minority Customer
161	I17_D2	Char	2	426	94 %Minority Customer
162	I18_A1	Char	2	428	92 Net Profit/loss
163	I18_A2	Char	2	430	94 Net Profit/loss

Number	Variable	Type	Length	Position	Label
164	I18_B1	Char	2	432	92 %Total Personal Income
165	I18_B2	Char	2	434	94 %Total Personal Income
166	I18_C1_1	Char	2	436	92 Affect Profit: Health Insurance
167	I18_C1_2	Char	2	438	92 Affect Profit: credit market
168	I18_C1_3	Char	2	440	92 Affect Profit: irs
169	I18_C1_4	Char	2	442	92 Affect Profit: environmental
170	I18_C1_5	Char	2	444	92 Affect Profit: ada
171	I18_C1_6	Char	2	446	92 Affect Profit: osha
172	I18_C1_7	Char	2	448	92 Affect Profit: financial capital
173	I18_C1_8	Char	2	450	92 Affect Profit: crime
174	I18_C2_1	Char	2	452	94 Affect Profit: Health Insurance
175	I18_C2_2	Char	2	454	94 Affect Profit: credit market
176	I18_C2_3	Char	2	456	94 Affect Profit: irs
177	I18_C2_4	Char	2	458	94 Affect Profit: environmental
178	I18_C2_5	Char	2	460	94 Affect Profit: ada
179	I18_C2_6	Char	2	462	94 Affect Profit: osha
180	I18_C2_7	Char	2	464	94 Affect Profit: financial capital
181	I18_C2_8	Char	2	466	94 Affect Profit: crime
182	I19A	Char	2	468	Any paid employees 92 or 94
191	I19F	Char	2	486	Employee Health Plan 92 or 94
183	I19_B1	Char	2	470	92 Employees (mar 12th)
184	I19_B2	Char	2	472	94 Employees (mar 12th)
185	I19_C1	Char	2	474	92 %Employees Female
186	I19_C2	Char	2	476	94 %Employees Female
187	I19_D1	Char	2	478	92 % Employees Minority
188	I19_D2	Char	2	480	94 % Employees Minority
189	I19_E1	Char	2	482	92 Retirement Plan
190	I19_E2	Char	2	484	94 Retirement Plan
192	I19_G1	Char	2	488	92 Why no Health Plan
194	I19_G2	Char	2	492	94 Why no Health Plan
193	I19_G1_S	Char	2	490	92 Why no Health Plan: write in
195	I19_G2_S	Char	2	494	94 Why no Health Plan: write in
51	I1A	Char	2	206	Own Same 92 Business
52	I1B	Char	2	208	Yr Ownership End
53	I1C	Char	2	210	Why Change in Ownership
196	I20_1	Char	2	496	92 Franchise
197	I20_2	Char	2	498	94 Franchise
201	I21B	Char	2	506	Primary Home Business
202	I21C	Char	2	508	ZIP Different from Mailed
203	I21C_Z	Char	2	510	ZIP
198	I21_A1	Char	2	500	Home Business at Startup
199	I21_A2	Char	2	502	92 Home Business
200	I21_A3	Char	2	504	94 Home Business
221	I22_S	Char	2	546	Available Language-write in
222	I23A	Char	2	548	%Sales Exports
254	I23E	Char	2	612	Years Exporter
223	I23_B1	Char	2	550	92 % Sales Exported ex US
224	I23_B2	Char	2	552	94% Sales Exported ex US
225	I23_C11	Char	2	554	92 Export Destination: Africa

Number	Variable	Type	Length	Position	Label
226	I23_C12	Char	2	556	92 Export Destination: Asia
227	I23_C13	Char	2	558	92 Export Destination: Oceania
228	I23_C14	Char	2	560	92 Export Destination: Canada
229	I23_C15	Char	2	562	92 Export Destination: CA/Caribbean
230	I23_C16	Char	2	564	92 Export Destination: Europe
231	I23_C17	Char	2	566	92 Export Destination: Japan
232	I23_C18	Char	2	568	92 Export Destination: Mexico
233	I23_C19	Char	2	570	92 Export Destination: Middle East
235	I23_C21	Char	2	574	94 Export Destination: Africa
236	I23_C22	Char	2	576	94 Export Destination: Asia
237	I23_C23	Char	2	578	94 Export Destination: Oceania
238	I23_C24	Char	2	580	94 Export Destination: Canada
239	I23_C25	Char	2	582	94 Export Destination: CA/Caribbean
240	I23_C26	Char	2	584	94 Export Destination: Europe
241	I23_C27	Char	2	586	94 Export Destination: Japan
242	I23_C28	Char	2	588	94 Export Destination: Mexico
243	I23_C29	Char	2	590	94 Export Destination: Middle East
234	I23_C110	Char	2	572	92 Export Destination: South America
244	I23_C210	Char	2	592	94 Export Destination: South America
245	I23_D_1	Char	2	594	92 Export Assistance: ITA
246	I23_D_2	Char	2	596	92 Export Assistance: SBA
247	I23_D_3	Char	2	598	92 Export Assistance: MBDA
248	I23_D_4	Char	2	600	92 Export Assistance: EX-IM Bank
249	I23_D_5	Char	2	602	92 Export Assistance: State
250	I23_D_6	Char	2	604	92 Export Assistance: Bank
251	I23_D_7	Char	2	606	92 Export Assistance: consultants
252	I23_D_8	Char	2	608	92 Export Assistance: other
253	I23_D_8_	Char	2	610	92 Export Assistance: write in
255	I24A	Char	2	614	Exports Planned?
256	I24B_1	Char	2	616	Why can Export: financing
257	I24B_2	Char	2	618	Why can Export: information opportunities
258	I24B_3	Char	2	620	Why can Export: foreign trade restriction
259	I24B_4	Char	2	622	Why can Export: US trade restrictions
260	I24B_5	Char	2	624	Why can Export: foreign market competition
261	I24B_6	Char	2	626	Why can Export: price
262	I24B_7	Char	2	628	Why can Export: dollar
263	I24B_8	Char	2	630	Why can Export: environmental reg
264	I24B_9	Char	2	632	Why can Export: other
265	I24B_9_S	Char	2	634	Why can Export: write in
266	I24C1	Char	2	636	NAFTA Effect on Canada Export
267	I24C2	Char	2	638	NAFTA Effect on Mexico Export
268	I24D1	Char	2	640	NAFTA Relocate to Canada
269	I24D2	Char	2	642	NAFTA Relocate to Mexico
271	I26_A	Char	2	646	92 50+ Employees
272	I26_B	Char	2	648	94 50+ Employees
273	I27_A	Char	2	650	92 Employees at 1250 hrs
274	I27_B	Char	2	652	94 Employees at 1250 hrs
275	I28_A1	Char	2	654	92 Family/Medical Leave
276	I28_A2	Char	2	656	94 Family/Medical Leave

Number	Variable	Type	Length	Position	Label
277	I28_B1	Char	2	658	92 No. Employees w F/M Leave
278	I28_B2	Char	2	660	94 No. Employees w F/M Leave
279	I28_C1	Char	2	662	92 % Employees w F/M Male
280	I28_C2	Char	2	664	94 % Employees w F/M Male
281	I28_D1	Char	2	666	92 Typical F/M Leave Duration
282	I28_D2	Char	2	668	94 Typical F/M Leave Duration
283	I29_1	Char	2	670	leave change: mother child care
284	I29_2	Char	2	672	leave change: father child care
285	I29_3	Char	2	674	leave change: adoption/foster care
286	I29_4	Char	2	676	leave change: own health(&childbirth)
287	I29_5	Char	2	678	leave change: idll relative
54	I2A	Char	2	212	92 Business Still Operating
55	I2B	Char	2	214	Yr 92 Business Discontinued
56	I2C	Char	2	216	Status at Business Closure
57	I2D1	Char	2	218	business close: cash flow
58	I2D2	Char	2	220	business close: business loans/credit
59	I2D3	Char	2	222	business close: personal loans/credit
60	I2D4	Char	2	224	business close: other
61	I2D_S	Char	2	226	Business Close: write in
288	I30A_1	Char	2	680	FMLA cost: administrative
289	I30A_2	Char	2	682	FMLA cost: benefits for leave
290	I30A_3	Char	2	684	FMLA cost: hiring/training replacement
291	I30A_4	Char	2	686	FMLA cost: other
292	I30B	Char	2	688	FMLA cost as % 94 wages
293	I31_1	Char	2	690	FMLA affect Employees: absence
294	I31_2	Char	2	692	FMLA affect Employees: turnover
295	I31_3	Char	2	694	FMLA affect Employees: productivity
296	I31_4	Char	2	696	FMLA affect Employees: morale
297	I31_5	Char	2	698	FMLA affect Employees: handle family need
63	I4A	Char	2	230	Age on Dec. 31, 1992
64	I4B	Char	2	232	Foreign Born
65	I5_1	Char	2	234	Marital Status at Startup/Acquire
66	I5_2	Char	2	236	Marital Status Dec. 31, 1992
67	I6A	Char	2	238	Veteran Status Dec. 31, 1992
68	I6B	Char	2	240	Vietnam Veteran
69	I6C	Char	2	242	Disabled Veteran
70	I7_11	Char	2	244	92 Health Insurance: spouse
71	I7_12	Char	2	246	92 Health Insurance: this business
72	I7_13	Char	2	248	92 Health Insurance: other business
73	I7_14	Char	2	250	92 Health Insurance: trade ass
74	I7_15	Char	2	252	92 Health Insurance: other
75	I7_16	Char	2	254	92 Health Insurance: none
76	I7_21	Char	2	256	94 Health Insurance: spouse
77	I7_22	Char	2	258	94 Health Insurance: this business
78	I7_23	Char	2	260	94 Health Insurance: other business
79	I7_24	Char	2	262	94 Health Insurance: trade ass
80	I7_25	Char	2	264	94 Health Insurance: other
81	I7_26	Char	2	266	94 Health Insurance: none
82	I8A	Char	2	268	Schooling at Startup

Number	Variable	Type	Length	Position	Label
83	I8B	Char	2	270	Post High School
84	I9A	Char	2	272	Close Relative Business Owner
85	I9B	Char	2	274	Work for Relative Owner
42	INDIV10	Char	1	159	modified economic sector
301	LFO	Char	1	718	legal form of organization
36	LFORCPTS	Char	2	128	used for sampling, LFO receipts size class
25	LTDPART	Char	1	86	# Limited partners
10	MSA	Char	4	35	metropolitan statistical area code
21	NA	Char	2	80	Native American owner type
27	NMGNPTRS	Char	2	89	# general partners (data has a miscoded 3)
28	NMSHLDRS	Char	2	91	# shareholders (data has miscoded 1,2,4)
26	NUMPTRS	Char	2	87	# partners (data has miscoded 0,2,4)
298	OWNWGT	Num	8	700	non-response adjusted owner weight
9	PLGEO	Char	4	31	incorporated place (census)
40	RANGRP	Num	8	143	random group
33	RECSZ	Char	1	111	receipts size class
44	RESP	Char	1	171	response
31	SAMCBO	Num	8	95	used for sampling
30	SAMFLAG	Char	1	94	used for sampling, sample certainty class
29	SECODE	Char	1	93	used for sampling, not applicable (value=blank)
6	SIC	Char	4	23	standard industrial classification code
300	SIC2	Char	2	716	standard industrial classification code, 2 digit
18	SMOWGT10	Num	8	70	used for sampling, sampling weight from 1992 SMOBE
2	STGEO	Char	2	1	state (fips)
7	UTYPE	Char	1	27	source lfo
32	WGT	Num	8	103	unadjusted owner weight

Table A.2. Firm File Description

Data Set Name	HOME.CBO_FIRM
Observations	78,147
Variables	251
Observation Length	619
Label	1992 CBO Firm file
File Size (bytes)	48,750,592

Number	Variable	Type	Length	Position	Label
13	ACAP92	Num	8	51	92 wages
50	ACEMP92	Num	8	198	92 employment
48	ACEMP94	Num	8	182	94 employment
12	ACEMP92A	Num	8	43	92 employment (copy of ACEMP92)
49	ACSR192	Num	8	190	92 sales
47	ACSR194	Num	8	174	94 sales
14	ACSR192A	Num	8	59	92 sales (copy of ACSR192)

Number	Variable	Type	Length	Position	Label
34	APEMP	Num	8	112	93 employment (data the same as ACEMP94)
22	API	Char	2	82	FERS--Asian/Pacific Islander
35	APSR1	Num	8	120	prior yr receipts
19	BLACK	Char	1	78	FERS-Black
5	BUSNO	Char	1	22	business number for SSN numbers
3	CBOID	Char	10	3	CBO identification number
37	CBORECSZ	Char	2	130	unknown (data the same as RECSZ)
23	CBOSEX	Char	1	84	FERS sex
41	CBOWGT2	Num	8	151	original sampling weight
1	CBO_FRAM	Char	1	0	major ethnicity grouping sampling frame
43	CFN	Char	11	160	Census file number
11	CSA	Char	4	39	consolidated statistical area
8	CTYGEO	Char	3	28	county (fips)
4	EISSN	Char	9	13	EI # for SSN cases
17	EMPLYR	Char	1	69	employer(1)-nonemployer(2)
15	EMPSZ	Char	1	67	92 employment size class
46	FDUP	Char	1	173	unknown
45	FEDIT	Char	1	172	form-edit
24	FRECSZ	Char	1	85	unknown
38	FRMFIELD	Char	1	132	firm field
39	FRMTYPE	Char	10	133	92 cbo form type (1 2 3)
249	FRMWGT	Num	8	608	nonresponse adjusted firm weight
16	HASOURCE	Char	1	68	used for sampling, race/ethnicity SMOBE codes
20	HISP	Char	1	79	FERS--Hispanic
59	I12	Char	2	222	year business established
220	I25	Char	2	544	Covered by FMLA
154	I221	Char	2	412	Language Spoken:Arabic
155	I222	Char	2	414	Language Spoken:Chinese
156	I223	Char	2	416	Language Spoken:English
157	I224	Char	2	418	Language Spoken:French
158	I225	Char	2	420	Language Spoken:German
159	I226	Char	2	422	Language Spoken:Greek
160	I227	Char	2	424	Language Spoken:Hindu
161	I228	Char	2	426	Language Spoken:Italian
162	I229	Char	2	428	Language Spoken:Japanese
163	I2210	Char	2	430	Language Spoken:Korean
164	I2211	Char	2	432	Language Spoken:Polish
165	I2212	Char	2	434	Language Spoken:Portugese
166	I2213	Char	2	436	Language Spoken:Russian
167	I2214	Char	2	438	Language Spoken:Spanish
168	I2215	Char	2	440	Language Spoken:Tagalog
169	I2216	Char	2	442	Language Spoken:Vietnamese
170	I2217	Char	2	444	Language Spoken:Other
60	I14A	Char	2	224	Capital at Startup
61	I14B	Char	2	226	% Capital Borrowed
62	I14C1	Char	2	228	Source Borrowed Capital:Bank
63	I14C2	Char	2	230	Source Borrowed Capital:Gvt Bank
64	I14C3	Char	2	232	Source Borrowed Capital:Any Government
65	I14C4	Char	2	234	Source Borrowed Capital:Investment Co

Number	Variable	Type	Length	Position	Label
66	I14C5	Char	2	236	Source Borrowed Capital:Previous Owner
67	I14C6	Char	2	238	Source Borrowed Capital:Supplier Credit
68	I14C7	Char	2	240	Source Borrowed Capital:oth. business
69	I14C8	Char	2	242	Source Borrowed Capital:home mortgage
70	I14C9	Char	2	244	Source Borrowed Capital:own credit card
71	I14C10	Char	2	246	Source Borrowed Capital:spouse
72	I14C11	Char	2	248	Source Borrowed Capital:family
73	I14C12	Char	2	250	Source Borrowed Capital:other personal
74	I14D1	Char	2	252	Source NonBorrowed:None
75	I14D2	Char	2	254	Source NonBorrowed:personal/family
76	I14D3	Char	2	256	Source NonBorrowed:sale personal assets
77	I14D4	Char	2	258	Source NonBorrowed:personal/family savin
78	I14D5	Char	2	260	Source NonBorrowed:other
79	I14D_S	Char	2	262	Source NonBorrowed:write in
80	I14E1	Char	2	264	Low Cash Measures:no occurrence
81	I14E2	Char	2	266	Low Cash Measures:rely oth business
82	I14E3	Char	2	268	Low Cash Measures:Invest more capital
83	I14E4	Char	2	270	Low Cash Measures:delay supplier payment
84	I14E5	Char	2	272	Low Cash Measures:family help
85	I14E6	Char	2	274	Low Cash Measures:other
86	I14E_S	Char	2	276	Low Cash Measures:write in
87	I17_A2	Char	2	278	94 Total Sales
88	I17_B11	Char	2	280	92 Customer(10%):fed govt
89	I17_B12	Char	2	282	92 Customer(10%):state govt
90	I17_B13	Char	2	284	92 Customer(10%):local govt
91	I17_B14	Char	2	286	92 Customer(10%):business
92	I17_B15	Char	2	288	92 Customer(10%):individuals
93	I17_B16	Char	2	290	92 Customer(10%):other
94	I17_B21	Char	2	292	94 Customer(10%):fed govt
95	I17_B22	Char	2	294	94 Customer(10%):state govt
96	I17_B23	Char	2	296	94 Customer(10%):local govt
97	I17_B24	Char	2	298	94 Customer(10%):business
98	I17_B25	Char	2	300	94 Customer(10%):individuals
99	I17_B26	Char	2	302	94 Customer(10%):other
100	I17_C11	Char	2	304	92 Market Areas:Neighborhood
101	I17_C12	Char	2	306	92 Market Areas:city/county
102	I17_C13	Char	2	308	92 Market Areas:regional
103	I17_C14	Char	2	310	92 Market Areas:national
104	I17_C15	Char	2	312	92 Market Areas:international
105	I17_C21	Char	2	314	94 Market Areas:Neighborhood
106	I17_C22	Char	2	316	94 Market Areas:city/county
107	I17_C23	Char	2	318	94 Market Areas:regional
108	I17_C24	Char	2	320	94 Market Areas:national
109	I17_C25	Char	2	322	94 Market Areas:international
110	I17_D1	Char	2	324	92 %Minority Customer
111	I17_D2	Char	2	326	94 %Minority Customer
112	I18_A1	Char	2	328	92 Net Profit/loss
113	I18_A2	Char	2	330	94 Net Profit/loss
114	I18_B1	Char	2	332	92 %Total Personal Income

Number	Variable	Type	Length	Position	Label
115	I18_B2	Char	2	334	94 %Total Personal Income
116	I18_C1_1	Char	2	336	92 Affect Profit:Health Insurance
117	I18_C1_2	Char	2	338	92 Affect Profit:credit market
118	I18_C1_3	Char	2	340	92 Affect Profit:irs
119	I18_C1_4	Char	2	342	92 Affect Profit:environmental
120	I18_C1_5	Char	2	344	92 Affect Profit:ada
121	I18_C1_6	Char	2	346	92 Affect Profit:osha
122	I18_C1_7	Char	2	348	92 Affect Profit:financial capital
123	I18_C1_8	Char	2	350	92 Affect Profit:crime
124	I18_C2_1	Char	2	352	94 Affect Profit:Health Insurance
125	I18_C2_2	Char	2	354	94 Affect Profit:credit market
126	I18_C2_3	Char	2	356	94 Affect Profit:irs
127	I18_C2_4	Char	2	358	94 Affect Profit:environmental
128	I18_C2_5	Char	2	360	94 Affect Profit:ada
129	I18_C2_6	Char	2	362	94 Affect Profit:osha
130	I18_C2_7	Char	2	364	94 Affect Profit:financial capital
131	I18_C2_8	Char	2	366	94 Affect Profit:crime
132	I19A	Char	2	368	Any paid employees 92 or 94
141	I19F	Char	2	386	Employee Health Plan 92 or 94
133	I19_B1	Char	2	370	92 Employees (mar 12th)
134	I19_B2	Char	2	372	94 Employees (mar 12th)
135	I19_C1	Char	2	374	92 %Employees Female
136	I19_C2	Char	2	376	94 %Employees Female
137	I19_D1	Char	2	378	92 % Employees Minority
138	I19_D2	Char	2	380	94 % Employees Minority
139	I19_E1	Char	2	382	92 Retirement Plan
140	I19_E2	Char	2	384	94 Retirement Plan
142	I19_G1	Char	2	388	92 Why no Health Plan
144	I19_G2	Char	2	392	94 Why no Health Plan
143	I19_G1_S	Char	2	390	92 Why no Health Plan:write in
145	I19_G2_S	Char	2	394	94 Why no Health Plan:write in
146	I20_1	Char	2	396	92 Franchise
147	I20_2	Char	2	398	94 Franchise
151	I21B	Char	2	406	Primary Home Business
152	I21C	Char	2	408	ZIP Different from Mailed
153	I21C_Z	Char	2	410	ZIP
148	I21_A1	Char	2	400	Home Business at Startup
149	I21_A2	Char	2	402	92 Home Business
150	I21_A3	Char	2	404	94 Home Business
171	I22_S	Char	2	446	Available Language-write in
172	I23A	Char	2	448	%Sales Exports
204	I23E	Char	2	512	Years Exporter
173	I23_B1	Char	2	450	92 % Sales Exported ex US
174	I23_B2	Char	2	452	94% Sales Exported ex US
175	I23_C11	Char	2	454	92 Export Destination:Africa
176	I23_C12	Char	2	456	92 Export Destination:Asia
177	I23_C13	Char	2	458	92 Export Destination:Oceania
178	I23_C14	Char	2	460	92 Export Destination:Canada
179	I23_C15	Char	2	462	92 Export Destination:CA/Caribbean

Number	Variable	Type	Length	Position	Label
180	I23_C16	Char	2	464	92 Export Destination:Europe
181	I23_C17	Char	2	466	92 Export Destination:Japan
182	I23_C18	Char	2	468	92 Export Destination:Mexico
183	I23_C19	Char	2	470	92 Export Destination:Middle East
185	I23_C21	Char	2	474	94 Export Destination:Africa
186	I23_C22	Char	2	476	94 Export Destination:Asia
187	I23_C23	Char	2	478	94 Export Destination:Oceania
188	I23_C24	Char	2	480	94 Export Destination:Canada
189	I23_C25	Char	2	482	94 Export Destination:CA/Caribbean
190	I23_C26	Char	2	484	94 Export Destination:Europe
191	I23_C27	Char	2	486	94 Export Destination:Japan
192	I23_C28	Char	2	488	94 Export Destination:Mexico
193	I23_C29	Char	2	490	94 Export Destination:Middle East
184	I23_C110	Char	2	472	92 Export Destination:South America
194	I23_C210	Char	2	492	94 Export Destination:South America
195	I23_D_1	Char	2	494	92 Export Assistance:ITA
196	I23_D_2	Char	2	496	92 Export Assistance:SBA
197	I23_D_3	Char	2	498	92 Export Assistance:MBDA
198	I23_D_4	Char	2	500	92 Export Assistance:EX-IM Bank
199	I23_D_5	Char	2	502	92 Export Assistance:State
200	I23_D_6	Char	2	504	92 Export Assistance:Bank
201	I23_D_7	Char	2	506	92 Export Assistance:consultants
202	I23_D_8	Char	2	508	92 Export Assistance:other
203	I23_D_8_	Char	2	510	92 Export Assistance:write in
205	I24A	Char	2	514	Exports Planned?
206	I24B_1	Char	2	516	Why can Export:financing
207	I24B_2	Char	2	518	Why can Export:information opportunies
208	I24B_3	Char	2	520	Why can Export:foreign trade restriction
209	I24B_4	Char	2	522	Why can Export:US trade restrictions
210	I24B_5	Char	2	524	Why can Export:foreign market competitio
211	I24B_6	Char	2	526	Why can Export:price
212	I24B_7	Char	2	528	Why can Export:dollar
213	I24B_8	Char	2	530	Why can Export:environmental reg
214	I24B_9	Char	2	532	Why can Export:other
215	I24B_9_S	Char	2	534	Why can Export:write in
216	I24C1	Char	2	536	NAFTA Effect on Canada Export
217	I24C2	Char	2	538	NAFTA Effect on Mexico Export
218	I24D1	Char	2	540	NAFTA Relocate to Canada
219	I24D2	Char	2	542	NAFTA Relocate to Mexico
221	I26_A	Char	2	546	92 50+ Employees
222	I26_B	Char	2	548	94 50+ Employees
223	I27_A	Char	2	550	92 Employees at 1250 hrs
224	I27_B	Char	2	552	94 Employees at 1250 hrs
225	I28_A1	Char	2	554	92 Family/Medical Leave
226	I28_A2	Char	2	556	94 Family/Medical Leave
227	I28_B1	Char	2	558	92 No. Employees w F/M Leave
228	I28_B2	Char	2	560	94 No. Employees w F/M Leave
229	I28_C1	Char	2	562	92 % Employees w F/M Male
230	I28_C2	Char	2	564	94 % Employees w F/M Male

Number	Variable	Type	Length	Position	Label
231	I28_D1	Char	2	566	92 Typical F/M Leave Duration
232	I28_D2	Char	2	568	94 Typical F/M Leave Duration
233	I29_1	Char	2	570	leave change:mother child care
234	I29_2	Char	2	572	leave change:father child care
235	I29_3	Char	2	574	leave change:adoption/foster care
236	I29_4	Char	2	576	leave change:own health(&childbirth)
237	I29_5	Char	2	578	leave change:idll relative
51	I2A	Char	2	206	92 Business Still Operating
52	I2B	Char	2	208	Yr 92 Business Discontinued
53	I2C	Char	2	210	Status at Business Closure
54	I2D1	Char	2	212	business close:cash flow
55	I2D2	Char	2	214	business close:business loans/credit
56	I2D3	Char	2	216	business close:personal loans/credit
57	I2D4	Char	2	218	business close:other
58	I2D_S	Char	2	220	Business Close:write in
238	I30A_1	Char	2	580	FMLA cost:administrative
239	I30A_2	Char	2	582	FMLA cost:benefits for leave
240	I30A_3	Char	2	584	FMLA cost:hiring/training replacement
241	I30A_4	Char	2	586	FMLA cost:other
242	I30B	Char	2	588	FMLA cost as % 94 wages
243	I31_1	Char	2	590	FMLA affect Employees:absence
244	I31_2	Char	2	592	FMLA affect Employees:turnover
245	I31_3	Char	2	594	FMLA affect Employees:productivity
246	I31_4	Char	2	596	FMLA affect Employees:morale
247	I31_5	Char	2	598	FMLA affect Employees:handle family need
42	INDIV10	Char	1	159	modified economic sector
251	LFO	Char	1	618	legal form of organization
36	LFORCPTS	Char	2	128	used for sampling, LFO receipts size class
25	LTDPART	Char	1	86	unknown
10	MSA	Char	4	35	metropolitan statistical area code
21	NA	Char	2	80	Native American owner type
27	NMGNPTRS	Char	2	89	# general partners (data has miscoded 3)
28	NMSHLDRS	Char	2	91	# shareholders (data has miscoded 1,2,4)
26	NUMPTRS	Char	2	87	# partners (data has miscoded 0,2,3,4)
248	OWNWGT	Num	8	600	non-response adjusted owner weight
9	PLGEO	Char	4	31	incorporated place (census)
40	RANGRP	Num	8	143	random group
33	RECSZ	Char	1	111	receipts size class
44	RESP	Char	1	171	response
31	SAMCBO	Num	8	95	used for sampling
30	SAMFLAG	Char	1	94	used for sampling, sample certainty class
29	SECODE	Char	1	93	used for sampling, not applicable (value=blank)
6	SIC	Char	4	23	standard industrial classification code
250	SIC2	Char	2	616	standard industrial classification code, 2 digit
18	SMOWGT10	Num	8	70	used for sampling, sampling weight from 1992 SMOBE
2	STGEO	Char	2	1	state (fips)
7	UTYPE	Char	1	27	source lfo
32	WGT	Num	8	103	unadjusted firm weight

Table A.3. Owner Variable Values

(Notes to follow)

Number	Variable	Value	Label	Number	Variable	Value	Label
22	API	0	Not Asian/Pacific Islander	38	FRMFIELD	1	Sole proprietor form
		2	Asian Indian			2	Firm form
		3	Chinese			3	Owner form
		4	Japanese	39	FRMTYPE	1	owner number 1's response
		5	Korean			2	owner number 2's response
		6	Vietnamese			3	owner number 3's response
		7	Filipino			4	owner number 4's response
		8	Hawaiian			5	owner number 5's response
		9	Other API			6	owner number 6's response
		14	Write-in API/Hispanic			7	owner number 7's response
		15	Write-in Non-API/Hispanic			8	owner number 8's response
19	BLACK	0	Not Black			9	owner number 9's response
		1	Black			10	owner number 10's response
		2	Black from SSN info.			99	firm response
1	CBO_FRAM	1	Hispanic	16	HASOURCE	7	1992 Race/ethnicity code responses, 1987 SMOBE
		2	Asian/Pacific Islander			I	1992 Race/ethnicity code imputed, 1987 SMOBE
		3	Black			N	Not in 1992 SMOBE mailout
		4	Women			R	1992 Race/ethnicity code responses, 1992 SMOBE
		5	Nonminority Male				
37	CBORECSZ	1	unknown	20	HISP	0	Not Hispanic
		2	unknown			2	Cuban
		3	unknown			3	Mexican
		4	unknown			4	Puerto Rican
		5	unknown			5	Latin American
		6	unknown			6	European Spanish
23	CBOSEX	1	Male			7	Other Hispanic
		2	Female	86	I10A	1	None
17	EMPLYR	1	Non-employer			2	<2
		2	Employer			3	2-5
15	EMPSZ	1	No paid employees			4	6-9
		2	1-4			5	10-19
		3	5-9			6	20+
		4	10-19	87	I10B	1	None
		5	20-49				
		6	50-99				
		7	100-249				
		8	250-499				
		9	500+				
46	FDUP	0	unknown				
45	FEDIT	0	Non-respondent				
		1	Respondent				
24	FRECSZ	0	unknown				
		1	unknown				

Number	Variable	Value	Label	Number	Variable	Value	Label
88	I10C	2	<2 yrs	94	I13B	7	1991
		3	2-5			8	1992
		4	6-9			1	Founded
		5	10-19			2	Received transfer/gift
		6	20+			3	Purchased
		7	Not sure			4	Inherited
		1	None			5	Other
89	I10D	2	<2	95	I13B_S		write in
		3	2-5	96	I13C	1	Primary source of income
		4	6-9			2	Secondary source of income
		5	10-19			3	Health limitations
		6	20+			4	Similar work not available
		7	Not sure			5	Freedom to see family
		1	Yes			6	Develop new ideas
90	I11_1	2	No			7	Advance in profession
		1	<\$5,000			8	Become own boss
		2	5,000-9,999			9	Other
		3	10,000-14,999	97	I13C_S		write in
		4	15,000-24,999	98	I14A	1	None
		5	25,000-34,999			2	<\$5,000
		6	35,000-49,999			3	5,000-9,999
91	I11_2	7	50,000-74,999			4	10,000-24,999
		8	75,000-99,999			5	25,000-49,999
		9	100,000-149,999			6	50,000-99,999
		10	150,000+			7	100,000-249,999
		1	<\$5,000			8	250,000-999,999
		2	5,000-9,999			9	1,000,000+
		3	10,000-14,999	99	I14B	1	None
92	I12	4	15,000-24,999			2	<10%
		5	25,000-34,999			3	10-24
		6	35,000-49,999			4	25-49
		7	50,000-74,999			5	50-74
		8	75,000-99,999			6	75-99
		9	100,000-149,999			7	100+
		10	150,000+	100	I14C1	1	Bank/lending firm bus. loan
93	I13A	1	Before 1970	109	I14C10	10	Spouse personal loan
		2	1970-1979	110	I14C11	11	Family personal loan
		3	1980-1985	111	I14C12	12	Other personal loan
		4	1986-1988	101	I14C2	2	Govt. backed bank/lending firm bus. loan
		5	1989				
		6	1990	102	I14C3	3	Govt. bus. Loan
				103	I14C4	4	Inv. firm or nonprofit source bus. loan
				104	I14C5	5	Previous owner bus. Loan
				105	I14C6	6	Supplier bus. trade

Number	Variable	Value	Label	Number	Variable	Value	Label
			credit			8	50-59
106	I14C7	7	Other bus. Loan			9	60+
107	I14C8	8	Personal loan asset	135	I16_S		write in
			backed	129	I161	1	No assistance
108	I14C9	9	Personal credit card	130	I162	2	Federal government
117	I14D_S		write in	131	I163	3	State and/or local
112	I14D1	1	None				government
113	I14D2	2	Personal/family assets	132	I164	4	College or university
114	I14D3	3	Sale of personal assets	133	I165	5	Other
115	I14D4	4	Personal/family savings				business/franchisor
116	I14D5	5	Other	134	I166	6	Other
124	I14E_S		write in	136	I17_A1	1	<\$5,000
118	I14E1	1	Did not occur			2	5,000-9,999
119	I14E2	2	Income from other			3	10,000-24,999
			bus./job			4	25,000-49,999
120	I14E3	3	Invested additional			5	50,000-99,999
			capital			6	100,000-199,999
121	I14E4	4	Delayed payment to			7	200,000-249,999
			suppliers			8	250,000-499,999
122	I14E5	5	Received help from			9	500,000-999,000
			family			10	1,000,000+
123	I14E6	6	Other				
125	I15A_1	1	None	137	I17_A2	1	<\$5,000
		2	<12 weeks			2	5,000-9,999
		3	12-23			3	10,000-24,999
		4	24-35			4	25,000-49,999
		5	36-47			5	50,000-99,999
		6	48+			6	100,000-199,999
126	I15A_2	1	None			7	200,000-249,999
		2	<12 weeks			8	250,000-499,999
		3	12-23			9	500,000-999,000
		4	24-35			10	1,000,000+
		5	36-47	138	I17_B11	1	Federal government
		6	48+	139	I17_B12	2	State government
127	I15B_1	1	None	140	I17_B13	3	Local government
		2	< 10 hrs	141	I17_B14	4	Other business
		3	10-19	142	I17_B15	5	Individuals
		4	20-29	143	I17_B16	6	All others
		5	30-39	144	I17_B21	1	Federal government
		6	40	145	I17_B22	2	State government
		7	41-49	146	I17_B23	3	Local government
		8	50-59	147	I17_B24	4	Other business
		9	60+	148	I17_B25	5	Individuals
128	I15B_2	1	None	149	I17_B26	6	All others
		2	< 10 hrs	150	I17_C11	1	Neighborhood
		3	10-19	151	I17_C12	2	City/county
		4	20-29	152	I17_C13	3	Regional
		5	30-39	153	I17_C14	4	National
		6	40	154	I17_C15	5	International
		7	41-49	155	I17_C21	1	Neighborhood
				156	I17_C22	2	City/county

Number	Variable	Value	Label	Number	Variable	Value	Label
157	I17_C23	3	Regional			2	Minor positive
158	I17_C24	4	National			3	Neutral
159	I17_C25	5	International			4	Minor negative
160	I17_D1	1	<10%			5	Strong negative
		2	10-24			6	Not applicable
		3	25-49			7	Don't know
		4	50-74	167	I18_C1_2	1	Strong positive
		5	75+			2	Minor positive
		6	Don't know			3	Neutral
161	I17_D2	1	<10%			4	Minor negative
		2	10-24			5	Strong negative
		3	25-49			6	Not applicable
		4	50-74			7	Don't know
		5	75+	168	I18_C1_3	1	Strong positive
		6	Don't know			2	Minor positive
162	I18_A1	1	Net profit <\$10,000			3	Neutral
		2	Net profit 10,000-24,999			4	Minor negative
		3	Net profit 25,000-99,999			5	Strong negative
		4	Net profit 100,000+			6	Not applicable
		5	Net loss <\$10,000			7	Don't know
		6	Net loss 10,000-24,999	169	I18_C1_4	1	Strong positive
		7	Net loss 25,000-99,999			2	Minor positive
		8	Net loss 100,000+			3	Neutral
163	I18_A2	1	Net profit <\$10,000			4	Minor negative
		2	Net profit 10,000-24,999			5	Strong negative
		3	Net profit 25,000-99,999			6	Not applicable
		4	Net profit 100,000+			7	Don't know
		5	Net loss <\$10,000	170	I18_C1_5	1	Strong positive
		6	Net loss 10,000-24,999			2	Minor positive
		7	Net loss 25,000-99,999			3	Neutral
		8	Net loss 100,000+			4	Minor negative
164	I18_B1	1	None			5	Strong negative
		2	<10%			6	Not applicable
		3	10-24			7	Don't know
		4	25-49	171	I18_C1_6	1	Strong positive
		5	50-74			2	Minor positive
		6	75-99			3	Neutral
		7	100			4	Minor negative
165	I18_B2	1	None			5	Strong negative
		2	<10%			6	Not applicable
		3	10-24			7	Don't know
		4	25-49	172	I18_C1_7	1	Neutral
		5	50-74			2	Minor negative
		6	75-99			3	Strong negative
		7	100			4	Not applicable
166	I18_C1_1	1	Strong positive			5	Don't know
				173	I18_C1_8	1	Neutral
						2	Minor negative
						3	Strong negative

Number	Variable	Value	Label	Number	Variable	Value	Label
174	I18_C2_1	4	Not applicable	181	I18_C2_8	1	Neutral
		5	Don't know			2	Minor negative
		1	Strong positive			3	Strong negative
		2	Minor positive			4	Not applicable
		3	Neutral			5	Don't know
		4	Minor negative	183	I19_B1	1	No employees
		5	Strong negative			2	1-4
		6	Not applicable			3	5-9
		7	Don't know			4	10-19
		1	Strong positive			5	20-49
175	I18_C2_2	2	Minor positive			6	50-99
		3	Neutral			7	100+
		4	Minor negative	184	I19_B2	1	No employees
		5	Strong negative			2	1-4
		6	Not applicable			3	5-9
		7	Don't know			4	10-19
		1	Strong positive			5	20-49
176	I18_C2_3	2	Minor positive			6	50-99
		3	Neutral			7	100+
		4	Minor negative	185	I19_C1	1	No women employees
		5	Strong negative			2	<10%
		6	Not applicable			3	10-24
		7	Don't know			4	25-49
		1	Strong positive			5	50-74
177	I18_C2_4	2	Minor positive			6	75+
		3	Neutral			7	Don't know
		4	Minor negative	186	I19_C2	1	No women employees
		5	Strong negative			2	<10%
		6	Not applicable			3	10-24
		7	Don't know			4	25-49
		1	Strong positive			5	50-74
178	I18_C2_5	2	Minor positive			6	75+
		3	Neutral			7	Don't know
		4	Minor negative	187	I19_D1	1	<10%
		5	Strong negative			2	10-24
		6	Not applicable			3	25-49
		7	Don't know			4	50-74
		1	Strong positive			5	75+
179	I18_C2_6	2	Minor positive			6	Don't know
		3	Neutral	188	I19_D2	1	<10%
		4	Minor negative			2	10-24
		5	Strong negative			3	25-49
		6	Not applicable			4	50-74
		7	Don't know			5	75+
		1	Neutral			6	Don't know
180	I18_C2_7	2	Minor negative	189	I19_E1	1	Yes
		3	Strong negative			2	No
		4	Not applicable	190	I19_E2	1	Yes
		5	Don't know			2	No

Number	Variable	Value	Label	Number	Variable	Value	Label
192	I19_G1	1	Cost high			2	No
		2	Rejected	201	I21B	1	Produce goods/services
		3	Dropped			2	Clerical work
		4	Not needed to attract or retain			3	Telecommute
		5	High turnover	202	I21C	1	Yes
		6	Administrative burden			2	No
		7	Not desired by employees	203	I21C_Z		write in
		8	Don't know	221	I22_S		write in
		9	Other	204	I221	1	Arabic
193	I19_G1_S		write in	213	I2210	10	Korean
194	I19_G2	1	Cost high	214	I2211	11	Polish
		2	Rejected	215	I2212	12	Portuguese
		3	Dropped	216	I2213	13	Russian
		4	Not needed to attract or retain	217	I2214	14	Spanish
		5	High turnover	218	I2215	15	Tagalog
		6	Administrative burden	219	I2216	16	Vietnamese
		7	Not desired by employees	220	I2217	17	Other
		8	Don't know	205	I222	2	Chinese
		9	Other	206	I223	3	English
			write in	207	I224	4	French
195	I19_G2_S		write in	208	I225	5	German
182	I19A	1	Yes	209	I226	6	Greek
		2	No	210	I227	7	Hindi (Urdu)
191	I19F	1	Yes, both 1992 and 1994	211	I228	8	Italian
		2	Yes, 1992	212	I229	9	Japanese
		3	Yes, 1994	223	I23_B1	1	<1%
		4	No			2	1-9
51	I1A	1	Yes			3	10-24
		2	No			4	25-49
52	I1B	1	1992			5	50-74
		2	1993			6	75-99
		3	1994			7	100
		4	1995			8	Don't know
53	I1C	1	Sold	224	I23_B2	1	<1%
		2	Transferred			2	1-9
		3	No longer exists			3	10-24
196	I20_1	1	Yes			4	25-49
		2	No			5	50-74
197	I20_2	1	Yes			6	75-99
		2	No			7	100
198	I21_A1	1	Yes	225	I23_C11	1	Africa
		2	No	234	I23_C110	10	South America
		3	Don't know	226	I23_C12	2	Asia
199	I21_A2	1	Yes	227	I23_C13	3	Australia/Oceania
		2	No	228	I23_C14	4	Canada
200	I21_A3	1	Yes	229	I23_C15	5	Caribbean/Central America
				230	I23_C16	6	Europe

Number	Variable	Value	Label	Number	Variable	Value	Label
231	I23_C17	7	Japan	256	I24B_1	1	Very important
232	I23_C18	8	Mexico			2	Somewhat important
233	I23_C19	9	Middle East			3	Not important
235	I23_C21	1	Africa			4	Not applicable
244	I23_C210	10	South America			5	Don't know
236	I23_C22	2	Asia	257	I24B_2	1	Very important
237	I23_C23	3	Australia/Oceania			2	Somewhat important
238	I23_C24	4	Canada			3	Not important
239	I23_C25	5	Caribbean/Central America			4	Not applicable
						5	Don't know
240	I23_C26	6	Europe	258	I24B_3	1	Very important
241	I23_C27	7	Japan			2	Somewhat important
242	I23_C28	8	Mexico			3	Not important
243	I23_C29	9	Middle East			4	Not applicable
245	I23_D_1	1	Yes			5	Don't know
		2	No	259	I24B_4	1	Very important
		3	Not contacted			2	Somewhat important
246	I23_D_2	1	Yes			3	Not important
		2	No			4	Not applicable
		3	Not contacted			5	Don't know
247	I23_D_3	1	Yes	260	I24B_5	1	Very important
		2	No			2	Somewhat important
		3	Not contacted			3	Not important
248	I23_D_4	1	Yes			4	Not applicable
		2	No			5	Don't know
		3	Not contacted	261	I24B_6	1	Very important
249	I23_D_5	1	Yes			2	Somewhat important
		2	No			3	Not important
		3	Not contacted			4	Not applicable
250	I23_D_6	1	Yes			5	Don't know
		2	No	262	I24B_7	1	Very important
		3	Not contacted			2	Somewhat important
251	I23_D_7	1	Yes			3	Not important
		2	No			4	Not applicable
		3	Not contacted			5	Don't know
252	I23_D_8	1	Yes	263	I24B_8	1	Very important
		2	No			2	Somewhat important
		3	Not contacted			3	Not important
253	I23_D_8_		write in			4	Not applicable
222	I23A	1	No			5	Don't know
		2	Yes, 1992	264	I24B_9	1	Very important
		3	Yes, 1994			2	Somewhat important
		4	Yes, 1992 and 1994			3	Not important
254	I23E	1	<1yr	265	I24B_9_S		write in
		2	1-5	266	I24C1	1	Yes
		3	6-10			2	No
		4	10+	267	I24C2	1	Yes
255	I24A	1	Yes			2	No
		2	No	268	I24D1	1	Yes

Number	Variable	Value	Label	Number	Variable	Value	Label
		2	No			2	<1
269	I24D2	1	Yes			3	1-4
		2	No			4	5-9
270	I25	1	Yes			5	10-24
		2	No			6	25-49
		3	Have not heard of law			7	50-74
		4	Not sure if law applies			8	75-100
			here	280	I28_C2	1	0%
271	I26_A	1	Yes			2	<1
		2	No			3	1-4
272	I26_B	1	Yes			4	5-9
		2	No			5	10-24
273	I27_A	1	0%			6	25-49
		2	<1			7	50-74
		3	1-4			8	75-100
		4	5-9	281	I28_D1	1	<1 week
		5	10-24			2	1
		6	25-49			3	2
		7	50-74			4	3-4
		8	75-100			5	5-7
274	I27_B	1	0%			6	8-12
		2	<1			7	12+
		3	1-4	282	I28_D2	1	<1 week
		4	5-9			2	1
		5	10-24			3	2
		6	25-49			4	3-4
		7	50-74			5	5-7
		8	75-100			6	8-12
275	I28_A1	1	Yes			7	12+
		2	No	283	I29_1	1	Yes
276	I28_A2	1	Yes			2	No
		2	No	284	I29_2	1	Yes
277	I28_B1	1	1-4			2	No
		2	5-9	285	I29_3	1	Yes
		3	10-19			2	No
		4	20-34	286	I29_4	1	Yes
		5	35-49			2	No
		6	50-99	287	I29_5	1	Yes
		7	100-499			2	No
		8	500+	54	I2A	1	Yes
278	I28_B2	1	1-4			2	No
		2	5-9			3	Don't know
		3	10-19	55	I2B	1	1992
		4	20-34			2	1993
		5	35-49			3	1994
		6	50-99			4	1995
		7	100-499	56	I2C	1	Successful
		8	500+			2	Unsuccessful
279	I28_C1	1	0%	57	I2D1	1	Inadequate cash or low

Number	Variable	Value	Label	Number	Variable	Value	Label
			sales			5	55-64
58	I2D2	2	Lack of access to bus.			6	65+
			loans	64	I4B	1	Yes
59	I2D3	3	Lack of access to pers.			2	No
			credit	65	I5_1	1	Never married
60	I2D4	4	Other			2	Married
61	I2D_S		write in			3	Divorced/separated
62	I3	1	Male			4	Widowed
		2	Female	66	I5_2	1	Never married
288	I30A_1	1	No			2	Married
		2	<\$5,000			3	Divorced/separated
		3	5,000-9,999			4	Widowed
		4	10,000+	67	I6A	1	Not a veteran
289	I30A_2	1	No			2	<6 months
		2	<\$5,000			3	6 months +
		3	5,000-9,999	68	I6B	1	Yes
		4	10,000+			2	No
290	I30A_3	1	No	69	I6C	1	Yes
		2	<\$5,000			2	No
		3	5,000-9,999	70	I7_11	1	Yes, spouse
		4	10,000+	71	I7_12	2	Yes, this business'
291	I30A_4	1	No	72	I7_13	3	Yes, another business'
		2	<\$5,000	73	I7_14	4	Yes, trade association
		3	5,000-9,999	74	I7_15	5	Yes, other source
		4	10,000+	75	I7_16	6	No
292	I30B	1	0%	76	I7_21	1	Yes, spouse
		2	<1	77	I7_22	2	Yes, this business'
		3	1-4	78	I7_23	3	Yes, another business'
		4	5-9	79	I7_24	4	Yes, trade association
		5	10-14	80	I7_25	5	Yes, other source
		6	15+	81	I7_26	6	No
293	I31_1	1	Reduced	82	I8A	1	<9th grade
		2	No noticeable effect			2	Some high school, no diploma
		3	Increased			3	High school graduate
294	I31_2	1	Reduced			4	Tech., trade, or vocational school
		2	No noticeable effect			5	Some college, no degree
		3	Increased			6	Associate degree
295	I31_3	1	Reduced			7	Bachelor's degree
		2	No noticeable effect			8	Master's degree
		3	Increased			9	Professional school or doctorate
296	I31_4	1	Reduced	83	I8B	1	Achitecture/Engineering
		2	No noticeable effect			2	Biological/medical science
		3	Increased			3	Business
297	I31_5	1	Reduced			4	Computer science
		2	No noticeable effect			5	Construction trade/Indust. Arts
		3	Increased				
63	I4A	1	<25				
		2	25-34				
		3	35-44				
		4	45-54				

Number	Variable	Value	Label	Number	Variable	Value	Label
		6	Law and legal studies			9	1,000,000+
		7	Liberal arts/general studies	44	RESP	0	unknown response
		8	Mathematics			1	non-response
		9	Military technologies	30	SAMFLAG	2	non-response
		10	Other college			C	Sampled with certainty (1992 SMOBE)
		11	Other vocational			L	Sampled with certainty (1992 SMOBE high receipts)
84	I9A	1	Yes			S	Sampled with non-certainty unknown
		2	No	29	SECODE		
85	I9B	1	Yes	7	UTYPE	C	1040C SSN number
		2	No			U	1120S employer birth
42	INDIV10	0	SIC 07-14			S	1120S employer
		1	15-17, 6552			T	1120S non-employer
		2	20-39			R	1065 employer birth
		3	40-49			P	1065 employer
		4	50, 51			Q	1065 non-employer
		5	52-59			E	1040C EI employer
		6	60-69				
		7	70-79				
		8	80-89				
		9	99				
301	LFO	0	Corporation				
		1	Sole proprietorship				
		2	Partnership				
36	LFORCPTS	3	unknown				
		4	unknown				
		5	unknown				
		6	unknown				
		11	unknown				
		12	unknown				
		13	unknown				
		14	unknown				
25	LTDPART	1	unknown				
		2	unknown				
		B	unknown				
		C	unknown				
21	NA	00	Not Native American				
		10	Aleut				
		11	Eskimo				
		12	American Indian				
33	RECSZ	0	<\$5,000				
		1	5,000-9,999				
		2	10,000-24,999				
		3	25,000-49,999				
		4	50,000-99,999				
		5	100,000-199,999				
		6	200,000-249,999				
		7	250,000-499,999				
		8	500,000-999,999				

Notes: Various codes such as SIC, MSA, CSA, STGEO, PLGEO, CTYGEO can be found in the Geographic Reference Manual (Census, 1993) and the Standard Industrial Classification Manual, 1987. M or MM values denote a skipped pattern question. Multiple response questions contain a variable for each response. Variables names followed by “_S” were write in values (i.e. other-specify). For variables beginning with “I” (survey questions) excluding variables ending in “_S” and I2217 (write-in values), 00 = non-response to a question, and blank response = non returned survey (as indicated from RESP = 0). Variable I19A (the employer Yes/No question) and I19B through I19G (skip values MM) appears to be filled in for non-employers (as shown from ACEMP = 0) and non returned surveys. Unknown represents fields assigned by the Bureau of the Census for internal processing.

Table A.4. Firm Variable Values
(Notes to follow)

Number	Variable	Value	Label	Number	Variable	Value	Label
22	API	0	Not Asian/Pacific Islander	17	EMPLYR	1	Non-employer
		2	Asian Indian			2	Employer
		3	Chinese	15	EMPSZ	1	No paid employees
		4	Japanese			2	1-4
		5	Korean			3	5-9
		6	Vietnamese			4	10-19
		7	Filipino			5	20-49
		8	Hawaiian			6	50-99
		9	Other API			7	100-249
		14	Write-in API/Hispanic			8	250-499
		15	Write-in Non-API/Hispanic			9	500+
19	BLACK	0	Not Black	46	FDUP	0	unknown
		1	Black	45	FEDIT	0	Non-respondent
		2	Black from SSN info.			1	Respondent
1	CBO_FRAM	1	Hispanic	24	FRECSZ	0	unknown
		2	Asian/Pacific Islander			1	unknown
		3	Black	38	FRMFIELD	1	Sole proprietor form
		4	Women			2	Firm form
		5	Nonminority Male			3	Owner form
37	CBORECSZ	1	unknown	39	FRMTYPE	1	owner number 1's response
		2	unknown			2	owner number 2's response
		3	unknown			3	owner number 3's response
		4	unknown			4	owner number 4's response
		5	unknown			5	owner number 5's response
		6	unknown			6	owner number 6's
23	CBOSEX	1	Male				
		2	Female				

Number	Variable	Value	Label	Number	Variable	Value	Label
16	HASOURCE		response	62	I14C1	1	Bank/lending firm bus. loan
		7	owner number 7's response	71	I14C10	10	Spouse personal loan
		8	owner number 8's response	72	I14C11	11	Family personal loan
		9	owner number 9's response	73	I14C12	12	Other personal loan
		10	owner number 10's response	63	I14C2	2	Govt. backed bank/lending firm bus. loan
		99	firm response	64	I14C3	3	Govt. bus. Loan
		7	1992 Race/ethnicity code responses, 1987 SMOBE	65	I14C4	4	Inv. firm or nonprofit source bus. loan
		I	1992 Race/ethnicity code imputed, 1987 SMOBE	66	I14C5	5	Previous owner bus. Loan
		N	Not in 1992 SMOBE mailout	67	I14C6	6	Supplier bus. trade credit
		R	1992 Race/ethnicity code responses, 1992 SMOBE	68	I14C7	7	Other bus. Loan
20	HISP		Not Hispanic	69	I14C8	8	Personal loan asset backed
		0	Cuban	70	I14C9	9	Personal credit card
		2	Mexican	79	I14D_S		write in
		3	Puerto Rican	74	I14D1	1	None
		4	Latin American	75	I14D2	2	Personal/family assets
		5	European Spanish	76	I14D3	3	Sale of personal assets
		6	Other Hispanic	77	I14D4	4	Personal/family savings
59	I12	7	Other Hispanic	78	I14D5	5	Other
		1	Before 1970	86	I14E_S		write in
		2	1970-1979	80	I14E1	1	Did not occur
		3	1980-1985	81	I14E2	2	Income from other bus./job
		4	1986-1988	82	I14E3	3	Invested additional capital
		5	1989	83	I14E4	4	Delayed payment to suppliers
		6	1990	84	I14E5	5	Received help from family
60	I14A	7	1991	85	I14E6	6	Other
		8	1992	87	I17_A2	1	<\$5,000
		1	None			2	5,000-9,999
		2	<\$5,000			3	10,000-24,999
		3	5,000-9,999			4	25,000-49,999
		4	10,000-24,999			5	50,000-99,999
		5	25,000-49,999			6	100,000-199,999
		6	50,000-99,999			7	200,000-249,999
		7	100,000-249,999			8	250,000-499,999
		8	250,000-999,999			9	500,000-999,000
61	I14B	9	1,000,000+			10	1,000,000+
		1	None	88	I17_B11	1	Federal government
		2	<10%	89	I17_B12	2	State government
		3	10-24	90	I17_B13	3	Local government
		4	25-49	91	I17_B14	4	Other business
		5	50-74	92	I17_B15	5	Individuals
		6	75-99	93	I17_B16	6	All others
		7	100+				

Number	Variable	Value	Label	Number	Variable	Value	Label
94	I17_B21	1	Federal government			3	10-24
95	I17_B22	2	State government			4	25-49
96	I17_B23	3	Local government			5	50-74
97	I17_B24	4	Other business			6	75-99
98	I17_B25	5	Individuals			7	100
99	I17_B26	6	All others	115	I18_B2	1	None
100	I17_C11	1	Neighborhood			2	<10%
101	I17_C12	2	City/county			3	10-24
102	I17_C13	3	Regional			4	25-49
103	I17_C14	4	National			5	50-74
104	I17_C15	5	International			6	75-99
105	I17_C21	1	Neighborhood			7	100
106	I17_C22	2	City/county	116	I18_C1_1	1	Strong positive
107	I17_C23	3	Regional			2	Minor positive
108	I17_C24	4	National			3	Neutral
109	I17_C25	5	International			4	Minor negative
110	I17_D1	1	<10%			5	Strong negative
		2	10-24			6	Not applicable
		3	25-49			7	Don't know
		4	50-74	117	I18_C1_2	1	Strong positive
		5	75+			2	Minor positive
		6	Don't know			3	Neutral
111	I17_D2	1	<10%			4	Minor negative
		2	10-24			5	Strong negative
		3	25-49			6	Not applicable
		4	50-74			7	Don't know
		5	75+	118	I18_C1_3	1	Strong positive
		6	Don't know			2	Minor positive
112	I18_A1	1	Net profit <\$10,000			3	Neutral
		2	Net profit 10,000-24,999			4	Minor negative
		3	Net profit 25,000-99,999			5	Strong negative
		4	Net profit 100,000+			6	Not applicable
		5	Net loss <\$10,000			7	Don't know
		6	Net loss 10,000-24,999	119	I18_C1_4	1	Strong positive
		7	Net loss 25,000-99,999			2	Minor positive
		8	Net loss 100,000+			3	Neutral
113	I18_A2	1	Net profit <\$10,000			4	Minor negative
		2	Net profit 10,000-24,999			5	Strong negative
		3	Net profit 25,000-99,999			6	Not applicable
		4	Net profit 100,000+			7	Don't know
		5	Net loss <\$10,000	120	I18_C1_5	1	Strong positive
		6	Net loss 10,000-24,999			2	Minor positive
		7	Net loss 25,000-99,999			3	Neutral
		8	Net loss 100,000+			4	Minor negative
114	I18_B1	1	None			5	Strong negative
		2	<10%	121	I18_C1_6	1	Strong positive
						2	Minor positive

Number	Variable	Value	Label	Number	Variable	Value	Label
122	I18_C1_7	3	Neutral	129	I18_C2_6	7	Don't know
		4	Minor negative			1	Strong positive
		5	Strong negative			2	Minor positive
		6	Not applicable			3	Neutral
		7	Don't know			4	Minor negative
123	I18_C1_8	1	Neutral	130	I18_C2_7	5	Strong negative
		2	Minor negative			6	Not applicable
		3	Strong negative			7	Don't know
		4	Not applicable			1	Neutral
		5	Don't know			2	Minor negative
124	I18_C2_1	1	Strong positive	131	I18_C2_8	3	Strong negative
		2	Minor positive			4	Not applicable
		3	Neutral			5	Don't know
		4	Minor negative			1	Neutral
		5	Strong negative			2	Minor negative
125	I18_C2_2	6	Not applicable	133	I19_B1	3	Strong negative
		7	Don't know			4	Not applicable
		1	Strong positive			5	Don't know
		2	Minor positive			1	No employees
		3	Neutral			2	1-4
126	I18_C2_3	4	Minor negative	134	I19_B2	3	5-9
		5	Strong negative			4	10-19
		6	Not applicable			5	20-49
		7	Don't know			6	50-99
		1	Strong positive			7	100+
127	I18_C2_4	2	Minor positive	135	I19_C1	1	No employees
		3	Neutral			2	1-4
		4	Minor negative			3	5-9
		5	Strong negative			4	10-19
		6	Not applicable			5	20-49
128	I18_C2_5	7	Don't know	136	I19_C2	6	50-99
		1	Strong positive			7	100+
		2	Minor positive			1	No women employees
		3	Neutral			2	<10%
		4	Minor negative			3	10-24
		5	Strong negative	137	I19_D1	4	25-49
		6	Not applicable			5	50-74
						6	75+
						7	Don't know
						1	<10%

Number	Variable	Value	Label	Number	Variable	Value	Label
		4	50-74			3	Don't know
		5	75+	149	I21_A2	1	Yes
		6	Don't know			2	No
138	I19_D2	1	<10%	150	I21_A3	1	Yes
		2	10-24			2	No
		3	25-49	151	I21B	1	Produce goods/services
		4	50-74			2	Clerical work
		5	75+			3	Telecommute
		6	Don't know	152	I21C	1	Yes
139	I19_E1	1	Yes			2	No
		2	No	153	I21C_Z		write in
140	I19_E2	1	Yes	171	I22_S		write in
		2	No	154	I221	1	Arabic
142	I19_G1	1	Cost high	163	I2210	10	Korean
		2	Rejected	164	I2211	11	Polish
		3	Dropped	165	I2212	12	Portuguese
		4	Not needed to attract or retain	166	I2213	13	Russian
		5	High turnover	167	I2214	14	Spanish
		6	Administrative burden	168	I2215	15	Tagalog
		7	Not desired by employees	169	I2216	16	Vietnamese
		8	Don't know	170	I2217	17	Other
		9	Other	155	I222	2	Chinese
143	I19_G1_S		write in	156	I223	3	English
144	I19_G2	1	Cost high	157	I224	4	French
		2	Rejected	158	I225	5	German
		3	Dropped	159	I226	6	Greek
		4	Not needed to attract or retain	160	I227	7	Hindi (Urdu)
		5	High turnover	161	I228	8	Italian
		6	Administrative burden	162	I229	9	Japanese
		7	Not desired by employees	173	I23_B1	1	<1%
		8	Don't know			2	1-9
		9	Other			3	10-24
145	I19_G2_S		write in			4	25-49
132	I19A	1	Yes			5	50-74
		2	No			6	75-99
141	I19F	1	Yes, both 1992 and 1994			7	100
		2	Yes, 1992			8	Don't know
		3	Yes, 1994	174	I23_B2	1	<1%
		4	No			2	1-9
146	I20_1	1	Yes			3	10-24
		2	No			4	25-49
147	I20_2	1	Yes			5	50-74
		2	No			6	75-99
148	I21_A1	1	Yes			7	100
		2	No			8	Don't know
				175	I23_C11	1	Africa
				184	I23_C110	10	South America
				176	I23_C12	2	Asia
				177	I23_C13	3	Australia/Oceania

Number	Variable	Value	Label	Number	Variable	Value	Label
178	I23_C14	4	Canada			4	10+
179	I23_C15	5	Caribbean/Central America	205	I24A	1	Yes
180	I23_C16	6	Europe			2	No
181	I23_C17	7	Japan	206	I24B_1	1	Very important
182	I23_C18	8	Mexico			2	Somewhat important
183	I23_C19	9	Middle East			3	Not important
185	I23_C21	1	Africa			4	Not applicable
194	I23_C210	10	South America			5	Don't know
186	I23_C22	2	Asia	207	I24B_2	1	Very important
187	I23_C23	3	Australia/Oceania			2	Somewhat important
188	I23_C24	4	Canada			3	Not important
189	I23_C25	5	Caribbean/Central America			4	Not applicable
190	I23_C26	6	Europe			5	Don't know
191	I23_C27	7	Japan	208	I24B_3	1	Very important
192	I23_C28	8	Mexico			2	Somewhat important
193	I23_C29	9	Middle East			3	Not important
195	I23_D_1	1	Yes			4	Not applicable
		2	No			5	Don't know
		3	Not contacted	209	I24B_4	1	Very important
196	I23_D_2	1	Yes			2	Somewhat important
		2	No			3	Not important
		3	Not contacted			4	Not applicable
197	I23_D_3	1	Yes			5	Don't know
		2	No	210	I24B_5	1	Very important
		3	Not contacted			2	Somewhat important
198	I23_D_4	1	Yes			3	Not important
		2	No			4	Not applicable
		3	Not contacted			5	Don't know
199	I23_D_5	1	Yes	211	I24B_6	1	Very important
		2	No			2	Somewhat important
		3	Not contacted			3	Not important
200	I23_D_6	1	Yes			4	Not applicable
		2	No			5	Don't know
		3	Not contacted	212	I24B_7	1	Very important
201	I23_D_7	1	Yes			2	Somewhat important
		2	No			3	Not important
		3	Not contacted			4	Not applicable
202	I23_D_8	1	Yes			5	Don't know
		2	No	213	I24B_8	1	Very important
		3	Not contacted			2	Somewhat important
203	I23_D_8_		write in			3	Not important
172	I23A	1	No			4	Not applicable
		2	Yes, 1992			5	Don't know
		3	Yes, 1994	214	I24B_9	1	Very important
		4	Yes, 1992 and 1994			2	Somewhat important
204	I23E	1	<1yr			3	Not important
		2	1-5	215	I24B_9_S		write in
		3	6-10	216	I24C1	1	Yes
						2	No

Number	Variable	Value	Label	Number	Variable	Value	Label
217	I24C2	1	Yes			7	100-499
		2	No			8	500+
218	I24D1	1	Yes	229	I28_C1	1	0%
		2	No			2	<1
219	I24D2	1	Yes			3	1-4
		2	No			4	5-9
220	I25	1	Yes			5	10-24
		2	No			6	25-49
		3	Have not heard of law			7	50-74
		4	Not sure if law applies here			8	75-100
221	I26_A	1	Yes	230	I28_C2	1	0%
		2	No			2	<1
222	I26_B	1	Yes			3	1-4
		2	No			4	5-9
223	I27_A	1	0%			5	10-24
		2	<1			6	25-49
		3	1-4			7	50-74
		4	5-9			8	75-100
		5	10-24	231	I28_D1	1	<1 week
		6	25-49			2	1
		7	50-74			3	2
		8	75-100			4	3-4
224	I27_B	1	0%			5	5-7
		2	<1			6	8-12
		3	1-4			7	12+
		4	5-9	232	I28_D2	1	<1 week
		5	10-24			2	1
		6	25-49			3	2
		7	50-74			4	3-4
		8	75-100			5	5-7
225	I28_A1	1	Yes			6	8-12
		2	No			7	12+
226	I28_A2	1	Yes	233	I29_1	1	Yes
		2	No			2	No
227	I28_B1	1	1-4	234	I29_2	1	Yes
		2	5-9			2	No
		3	10-19	235	I29_3	1	Yes
		4	20-34			2	No
		5	35-49	236	I29_4	1	Yes
		6	50-99			2	No
		7	100-499	237	I29_5	1	Yes
		8	500+			2	No
228	I28_B2	1	1-4	51	I2A	1	Yes
		2	5-9			2	No
		3	10-19			3	Don't know
		4	20-34	52	I2B	1	1992
		5	35-49			2	1993
		6	50-99			3	1994
						4	1995

Number	Variable	Value	Label	Number	Variable	Value	Label
53	I2C	1	Successful			3	40-49
		2	Unsuccessful			4	50, 51
54	I2D1	1	Inadequate cash or low sales			5	52-59
55	I2D2	2	Lack of access to bus. loans			6	60-69
56	I2D3	3	Lack of access to pers. credit			7	70-79
57	I2D4	4	Other			8	80-89
58	I2D_S		write in			9	99
238	I30A_1	1	No	251	LFO	0	Corporation
		2	<\$5,000			1	Sole proprietorship
		3	5,000-9,999			2	Partnership
		4	10,000+	36	LFORCPTS	3	unknown
239	I30A_2	1	No			4	unknown
		2	<\$5,000			5	unknown
		3	5,000-9,999			6	unknown
		4	10,000+			11	unknown
240	I30A_3	1	No			12	unknown
		2	<\$5,000			13	unknown
		3	5,000-9,999			14	unknown
		4	10,000+	25	LTDPART	1	unknown
241	I30A_4	1	No			2	unknown
		2	<\$5,000			B	unknown
		3	5,000-9,999			C	unknown
		4	10,000+	21	NA	00	Not Native American
242	I30B	1	0%			10	Aleut
		2	<1			11	Eskimo
		3	1-4			12	American Indian
		4	5-9	33	RECSZ	0	<\$5,000
		5	10-14			1	5,000-9,999
		6	15+			2	10,000-24,999
243	I31_1	1	Reduced			3	25,000-49,999
		2	No noticeable effect			4	50,000-99,999
		3	Increased			5	100,000-199,999
244	I31_2	1	Reduced			6	200,000-249,999
		2	No noticeable effect			7	250,000-499,999
		3	Increased			8	500,000-999,999
245	I31_3	1	Reduced	44	RESP	9	1,000,000+
		2	No noticeable effect			0	unknown
		3	Increased			1	response
246	I31_4	1	Reduced			2	non-response
		2	No noticeable effect	30	SAMFLAG	C	Sampled with certainty (1992 SMOBE)
		3	Increased			L	Sampled with certainty (1992 SMOBE high receipts)
247	I31_5	1	Reduced			S	Sampled with non-certainty
		2	No noticeable effect	29	SECODE		unknown
		3	Increased	7	UTYPE	C	1040C SSN number
42	INDIV10	0	SIC 07-14			U	1120S employer birth
		1	15-17, 6552			S	1120S employer
		2	20-39				

Number	Variable	Value	Label	Number	Variable	Value	Label
		T	1120S non-employer			Q	1065 non-employer
		R	1065 employer birth			E	1040C EI employer
		P	1065 employer				

Notes: Various codes such as SIC, MSA, CSA, STGEO, PLGEO, CTYGEO can be found in the Geographic Reference Manual (Census, 1993) and the Standard Industrial Classification Manual, 1987. M or MM values denote a skipped pattern question. Multiple response questions contain a variable for each response. Variables names followed by “_S” were write in values (i.e. other-specify). For variables beginning with “I” (survey questions) excluding variables ending in “_S” and I2217 (write-in values), 00 = non-response to a question, and blank response = non returned survey (as indicated from RESP = 0). Variable I19A (the employer Yes/No question) and I19B through I19G (skip values MM) appears to be filled in for non-employers (as shown from ACEMP = 0) and non returned surveys. Unknown represents fields assigned by the Bureau of the Census for internal processing.

Table A.5. Sole Proprietorship Survey Skip Patterns

Skip Over		Skip From	
Question Number	Question	Question Number	Question (skip response)
1b	Year ownership ended	1a	Own the same business (yes)
1c	Ownership change method	1a	Own the same business (yes)
2b	Year discontinued	2a	Business still operating (yes, Don't know)
2c	Business status at closure	2a	Business still operating (yes, Don't know)
2d	Why unsuccessful	2c	Business status at closure (successful)
6b	Activity duty during Vietnam-era	6a	Veteran status (not a veteran, duty less than 6 months)
6c	Disabled	6a	Veteran status (not a veteran)
9b	Work for relative owner	9a	Relative owner (no)
10b	Years manager	10a	Years work experience before owning (none)
10c	Years owner of another business	10a	Years work experience before owning (none)
10d	Worked for a business in same industry as current business	10a	Years work experience before owning (none)
14b	Percent capital borrowed	14a	Capital to start/acquire firm (none)
14c	Source of borrowing	14a	Capital to start/acquire firm (none)
14d	Source of non-borrowing funds	14a	Capital to start/acquire firm (none)
14e	Measures to account for fund shortfall	14a	Capital to start/acquire firm (none)
14c	Source of borrowing	14b	Percent capital borrowed (none)

Skip Over		Skip From	
Question Number	Question	Question Number	Question (skip response)
19b	Total employment	19a	Any paid employees (no)
19c	Percent women employees	19a	Any paid employees (no)
19d	Percent white employees	19a	Any paid employees (no)
19e	Retirement offerings	19a	Any paid employees (no)
19f	Health plan offerings	19a	Any paid employees (no)
19g	Reason no health plan	19a	Any paid employees (no)
19g	Reason no health plan	19f	Health plan offerings (yes)
21b	Primary use of the home	21a	Home-based (no to all)
23b	Percent exports of sales	23a	Export sales (no)
23c	Export destination	23a	Export sales (no)
23d	Export agency assistance	23a	Export sales (no)
23e	Years exporting	23a	Export sales (no)
25	Business covered by FMLA	19a	Any paid employees (no)
26	At least 50 employees for 20 weeks	19a	Any paid employees (no)
27	Percent employees at least 1,250 hrs.	19a	Any paid employees (no)
28a	Any FMLA	19a	Any paid employees (no)
28b	Number of employees taking FMLA	19a	Any paid employees (no)
28c	Percent FMLA male	19a	Any paid employees (no)
28d	Typical length of FMLA	19a	Any paid employees (no)
29	Change due to FMLA	19a	Any paid employees (no)
30a	FMLA costs	19a	Any paid employees (no)
30b	Percent FMLA of payroll costs	19a	Any paid employees (no)
31	Employee affects from FMLA	19a	Any paid employees (no)
28b	Number of employees taking FMLA	28a	Any FMLA (no both years)
28c	Percent FMLA male	28a	Any FMLA (no both years)
28d	Typical length of FMLA	28a	Any FMLA (no both years)
30a	FMLA costs	29	Change due to FMLA (no to all)
30b	Percent FMLA of payroll costs	29	Change due to FMLA (no to all)
31	Employee affects from FMLA	29	Change due to FMLA (no to all)

Table A.6. Business Characteristics Survey Skip Patterns

Skip Over		Skip From	
Question Number	Question	Question Number	Question (skip response)
1b	Year business ended	1a	Business still in existence (yes, Don't know)
1c	Business status at closure	1a	Business still in existence (yes, Don't know)
1d	Why unsuccessful	1a	Business still in existence (yes, Don't know)
1d	Why unsuccessful	1c	Business status at closure (successful)
3b	Percent capital borrowed	3a	Capital to start/acquire firm (none)
3c	Source of borrowing	3a	Capital to start/acquire firm (none)
3d	Source of non-borrowing funds	3a	Capital to start/acquire firm (none)
3e	Measures to account for fund shortfall	3a	Capital to start/acquire firm (none)
3c	Source of borrowing	3b	Percent capital borrowed (none)

Skip Over		Skip From	
Question Number	Question	Question Number	Question (skip response)
7b	Total employment	7a	Any paid employees (no)
7c	Percent women employees	7a	Any paid employees (no)
7d	Percent white employees	7a	Any paid employees (no)
7e	Retirement offerings	7a	Any paid employees (no)
7f	Health plan offerings	7a	Any paid employees (no)
7g	Reason no health plan	7a	Any paid employees (no)
7g	Reason no health plan	7f	Health plan offerings (yes)
10b	Primary use of the home	10a	Home-based (no to all)
12b	Percent exports of sales	12a	Export sales (no)
12c	Export destination	12a	Export sales (no)
12d	Export agency assistance	12a	Export sales (no)
12e	Years exporting	12a	Export sales (no)
14	Business covered by FMLA	7a	Any paid employees (no)
15	At least 50 employees for 20 weeks	7a	Any paid employees (no)
16	Percent employees at least 1,250 hrs.	7a	Any paid employees (no)
17a	Any FMLA	7a	Any paid employees (no)
17b	Number of employees taking FMLA	7a	Any paid employees (no)
17c	Percent FMLA male	7a	Any paid employees (no)
17d	Typical length of FMLA	7a	Any paid employees (no)
18	Change due to FMLA	7a	Any paid employees (no)
19a	FMLA costs	7a	Any paid employees (no)
19b	Percent FMLA of payroll costs	7a	Any paid employees (no)
20	Employee affects from FMLA	7a	Any paid employees (no)
17b	Number of employees taking FMLA	17a	Any FMLA (no both years)
17c	Percent FMLA male	17a	Any FMLA (no both years)
17d	Typical length of FMLA	17a	Any FMLA(no both years)
19a	FMLA costs	18	Change due to FMLA (no to all)
19b	Percent FMLA of payroll costs	18	Change due to FMLA (no to all)
20	Employee affects from FMLA	18	Change due to FMLA (no to all)

Table A.7. Owner Characteristics Survey Skip Patterns

Skip Over		Skip From	
Question Number	Question	Question Number	Question (skip response)
1b	Year ownership ended	1a	Own the same business (yes)
1c	Ownership change method	1a	Own the same business (yes)
5b	Activity duty during Vietnam-era	5a	Veteran status (not a veteran, duty less than 6 months)
5c	Disabled	5a	Veteran status (not a veteran)
8b	Work for relative owner	8a	Relative owner (no)
9b	Years manager	9a	Years work experience before owning (none)
9c	Years owner of another business	9a	Years work experience before owning (none)
9d	Worked for a business in same industry as current business	9a	Years work experience before owning (none)
12b	Percent capital borrowed	12a	Capital to start/acquire firm (none)
12c	Source of borrowing	12a	Capital to start/acquire firm (none)
12d	Source of non-borrowing funds	12a	Capital to start/acquire firm (none)

Skip Over		Skip From	
Question Number	Question	Question Number	Question (skip response)
12e	Measures to account for fund shortfall	12a	Capital to start/acquire firm (none)
12c	Source of borrowing	12b	Percent capital borrowed (none)

Table A.8. Sole Proprietorship Survey Multiple Response

Question Number	Question
2d	Why unsuccessful
7	Health insurance source
14c	Source of borrowing
14d	Source of non-borrowing funds
14e	Measures to account for fund shortfall
16	Assistance sources
17b	92 Customer(10%)
17c	Locations of sales
18c	Issues affecting profitability
22	Languages
23c	Export destinations
23d	Export agency assistance
24b	Exporting issues
29	Change due to FMLA
30a	FMLA costs
31	Employee affects from FMLA

Table A.9. Business Characteristics Survey Multiple Response

Question Number	Question
1d	Why unsuccessful
3c	Source of borrowing
3d	Source of non-borrowing funds
3e	Measures to account for fund shortfall
4	Assistance sources
5c	Locations of sales
6b	Issues affecting profitability
11	Languages
12c	Export destinations
12d	Export agency assistance
13b	Exporting issues
18	Change due to FMLA
19a	FMLA costs
20	Employee affects from FMLA

Table A.10. Owner Characteristics Survey Multiple Response

Question Number	Question
12c	Source of borrowing
12d	Source of non-borrowing funds
12e	Measures to account for fund shortfall
14	Assistance sources

Appendix B: The CBO Surveys Over the Years

Table B.1. CBO Owner Sample, Universe Estimates, and Response Rates

	Sample		
	1982	1987	1992
Total	126,248	127,640	116,589
Hispanic	25,454	24,678	22,400
Non-Hispanic Asian	25,439	24,664	19,141
Non-Hispanic Black	25,235	25,203	24,097
Non-Hispanic White Female	N.A.	26,475	24,885
Non-Hispanic White Male	25,044	26,620	26,066
Female	25,076	N.A.	44,917
	Universe Estimate		
	1982	1987	1992
Total	11,260,739	14,756,641	19,287,647
Hispanic	262,808	432,457	811,287
Non-Hispanic Asian	281,489	405,902	697,710
Non-Hispanic Black	325,461	426,348	638,203
Non-Hispanic White Female	N.A.	3,872,896	5,641,617
Non-Hispanic White Male	7,582,910	9,619,038	11,498,830
Female	3,160,031	N.A.	6,447,988
	Response Rates		
	1982	1987	1992
Total	79.24	69.03	59.08
Hispanic	74.96	64.90	59.29
Non-Hispanic Asian	79.26	66.06	59.62
Non-Hispanic Black	74.77	64.10	48.47
Non-Hispanic White Female	N.A.	75.36	63.80
Non-Hispanic White Male	84.36	73.76	63.82
Female	82.97	N.A.	59.78

Notes: N.A. = Not Available. 1982's total includes a double count for minority women. 1982 tabulations for women used data only from the women panel (did not utilize women records from the minority panels) but all of the data is available for research. For 1992, names and addresses for multiple owners from the IRS was not available, so the SMOBE/WOB address was used and sent to the businesses (thus reducing the response rate). For 1987 and 1992 attempts were made to obtain better coverage of S corporations and partnerships for microdata research purposes.

Table B.2. CBO Firm Sample, Universe Estimates, and Response Rates

	Sample		
	1982	1987	1992
Total	114,371	90,213	78,147
S Corporations	3,284	19,954	22,957
Partnerships	5,204	8,238	6,477
Sole proprietors	105,883	62,021	48,713
	Universe Estimate		
	1982	1987	1992
Total	9,338,523	13,039,184	17,253,143
S Corporations	325,816	924,172	1,564,270
Partnerships	502,012	634,804	1,089,578
Sole proprietors	9,625,496	11,480,208	14,599,295
	Response Rates		
	1982	1987	1992
Total	82.69	72.42	62.43
S Corporations	93.36	79.76	66.74
Partnerships	90.62	73.06	68.64
Sole proprietors	78.72	69.97	59.58

Notes: 1982's total includes a double count for minority women.

Firms were considered responding if any owner responded.

1982's universe estimate was adjusted to account for about 1,500 firms which did not respond but were used to calculate firm weights.

N.A. = Not available

For 1982 adjusted to the changes in the survey for 1987, see the CES discussion paper, Nucci, 1992 Appendix E.

Table B.3. CBO Variables, 1982, 1987, 1992 -- Cross-reference List by Variable Name

Variables	Variable Names		
	1982	1987	1992
County (a)	CTY	CTYGEO	CTYGEO
Employer/Non-Employer	EMPLR	EMPLYR	EMPLYR
Employment	EMP	ACEMP	ACEMP92
Employment Size Class	EMPSZ	EMPSZ	EMPSZ
Employer Flag	EMPLR	EMPLR	-
Legal form of organization	LFO	LFO	LFO
Black (a)	TABBLK	TABBLK	BLACK
Hispanic Ethnicity (a)	TABHIS	TABHIS	HISP
Other Race (a)	TABOTH	TABOTH	API, NA
Women (a)	TABWOM	TABWOM	CBOSEX
Firm Race/Sex/Ethnicity:			
Black Race	FADM	FERS_BLA	BLACK
Hispanic Ethnicity	FETH	FERS_HIS	HISP
Other Race (a)	FRAC	FERS_API, FERS_NA	API, NA
Sex (a)	FSEX	FERS_SEX	CBOSEX
Firm Response (b)	FRESP	FRESP	RESP
Industry Sector	IND	PDIV	-
Minority Classification	PANEL	CBO_FRAM	CBO_FRAM
Owner Race/Sex/Ethnicity:			
Black Race	FADM	SSA_RACE	BLACK
Hispanic Ethnicity	OETH	NA	HISP
Other Race	ORAC	SSA_RACE	API, NA
Sex (a)	OSEX	SSA_SEX	CBOSEX
Owner Response	RESP	REPORTED	RESP
Common owners (b)	RESPNO	RESPNO	-
Common owners, responding (b)	RESPON	RESPON	-
Common owners, nonresponding (b)	NORESPON	NORESPON	-
Panel (a)	PANEL	CBO_FRAM	CBO_FRAM
Place of incorporation (a)	PLACE	PLGEO	PLGEO
Random Group	RDGRP	RD	RANGRP
Receipts Size Class	RECSZ	RECSZ	RECSZ
SIC (a)	SIC	SIC	SIC
State (a)	ST	STGEO	STGEO
Sales (a)	SALES	ACSR1	ACSR192
SMOBE/WOB Response	NA	HASOURCE	HASOURCE
Wages	APR	ACAP	ACAP92
Weight, Owner	WGTCBO	WGTTOT	WGT
Weight, Adjusted Owner	WGTOWN	OWNWGT	OWNWGT
Weight, Adjusted Firm (a)	WGTFRM	FRMWGT	FRMWGT
ZIP Code	ZIP	ZIP5	-

(a) Different values were used in 1982 and 1987 CBO or due to survey processing changes, the variables have different meanings.

(b) Available on Firm File Only.

Methodology changes over the years

The Characteristics of Business Owners, 1992¹⁵ report page VII details the comparability of 1987 and 1992 data exactly as follows:

The following changes were made in survey methodology in 1992, which affect comparability with past reports:

1. More questions were added to the 1992 survey forms to meet the needs of CBO's primary data users. This has resulted in additional tables in the 1992 CBO publication.
2. Since the 1987 survey, the number of subchapter S corporations (included in the CBO) has risen at a much faster rate than the number of C corporations (not included the CBO). The net result was an approximately 20 percent increase in the CBO universe compared to an approximately 12 percent overall increase in business tax returns.
3. In 1987, classifications for firm data were based on the 1972 SIC Manual.¹⁶ For 1992, classifications are based on the 1987 SIC Manual.¹⁷ The SIC structure was changed to better reflect industry trends. These changes limit the comparability of data between the 1987 and 1992 CBO.
4. There was significant overstatement in the number of employer firms in 1987 due to processing errors. The overstatement primarily affects the number of employers, but minimally affects the employee and payroll numbers.
5. In 1987, data were available from the IRS and SSA to identify the owners of partnerships and subchapter S corporations, their gender, and sometimes their race/ethnicity. For 1992, all information on these owners came from responses to the 1992 SMOBE, WOB, and CBO.

The Characteristics of Business Owners, 1987¹⁸ report page VII details the comparability of 1982 and 1987 data exactly as follows:

The following changes were made in survey methodology in 1987 which affect comparability with the previous report:

¹⁵ *Characteristics of Business Owners, 1992*, U.S. Department of Commerce, Economics and Statistics Administration, Bureau of the Census, issued September, 1997.

¹⁶ Standard Industrial Classification Manual, 1972.

¹⁷ Standard Industrial Classification Manual, 1987.

¹⁸ *Characteristics of Business Owners, 1987*, U.S. Department of Commerce, Economics and Statistics Administration, Bureau of the Census, issued September, 1987.

1. The previous survey included any firm filing a business tax return with business receipts greater than zero. Because Census rounds receipt to the nearest thousand, any firm with receipts of \$499 or less was counted in the firms column of the published tables, but contributed zero to receipts. Most of these were part-time endeavors used to supplement the incomes of persons who were employed elsewhere full time. Including them in the tables made firms appear smaller and less lucrative than they actually were. In 1987, a firm was counted only if it had business receipts of \$500 or more.
2. In 1982, a large number of businesses were coded by the IRS into miscellaneous categories rather than into specific kinds of business (principal industrial activities). Many new procedures were implemented in 1987 in order to correct this problem. For example, new industry categories were added to the classification form used by businesses to indicate their business activities, and a computer program was developed which uses the business name to code unclassified businesses and businesses coded into miscellaneous categories. Although these improvements in coding yield considerably more accurate data for 1987, caution should be used when making comparisons with previous data by industry.
3. For the SMOBE/WOB, information from the Internal Revenue Service was supplied for up to 10 owners of a partnership or corporation. In the 1982 CBO, those businesses with more than 10 owners were ineligible for sample selection. This limit was not imposed in the 1987 CBO sample selection procedure in order to provide a more complete universe.
4. The 1982 CBO survey included sampling frames which overlapped. A business that was classified as both Black- and female-owned, for example, was eligible for sampling in both the Black and Women frames.

In 1987, cases were placed in one and only one sampling frame. For example, a Black- and female-owned business was sampled in the Black rather than the Women frame. However, for tabulation purposes, women-owned businesses in the Hispanic, Black, and other minority-owned frames were tabulated in the women-owned businesses panel as well as the specific minority panel.

This is not true of other multiple minority-owned cases; for example, Hispanic Blacks were tabulated only in the Hispanic panel, a change from 1982. This procedure allows data users to combine Black, Hispanic, and other minority-owned figures to get totals for all minority groups, something that not be done with the 1982 CBO.

5. In 1987, there were other minor changes in sampling:
 - a. In 1982, the CBO Hispanic frame consisted of cases selected from the SMOBE Hispanic frame who responded to the 1982 SMOBE. In 1987, the CBO Hispanic frame consisted of cases selected for sampling from the 1987 SMOBE Hispanic frame regardless of whether or not they

responded. A similar methodology change was used to place SMOBE cases from the “Asian” sample in the CBO other minority-owned frame.

- b. In 1982, the only cases eligible for sampling from the 1982 SMOBE Balance universe in CBO were cases that were selected and responded to the 1982 SMOBE. In 1987, all cases in the 1987 SMOBE Balance universe were eligible for selection in the CBO regardless of their 1987 SMOBE response status.

Appendix C: The 1987 CBO Surveys